TWRS
PRIVATIZATION

A New Direction For DOE

TWRS Privatization Request For Proposals DRAFT

November 1995

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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

NOV 1 6 1995

RTI:CS/95-RTI-118

Prospective Offerors and Other Interested Parties

DRAFT REQUEST FOR PROPOSALS (RFP) NO. DE-RP06-96RL13308

The Department of Energy (DOE), Richland Operations Office (RL) invites interested firms and stakeholders to provide comments on the attached draft RFP for waste remediation services. This draft RFP is part of RL's preparation for issuance of the final RFP in mid-February 1996.

In this procurement, DOE is inviting industry to use the innovative and competitive power of the private marketplace to bring new ideas, new concepts, and new partners to the accomplishment of DOE objectives. The overall goal of the privatization framework embodied in the draft RFP is to sharpen mission focus, improve performance, and save taxpayer dollars without, in any way, sacrificing the standards of nuclear and industrial safety and environmental protection. Furthermore, by soliciting comments prior to final issuance, we are signaling the importance we attach, in crafting this RFP, to the views of representatives of labor, state and local governments, local communities, business and financial groups, and other stakeholders.

This draft RFP is for the first phase of a two-phased approach to privatizing the processing of hazardous waste at the Hanford Site. To provide the services covered by the draft RFP, the successful contractor(s) will be expected, by private financing, to design, and if further selected, build, equip, operate and close a demonstration facility for the remediation of three waste envelopes of low-activity waste. Offerors will be required to provide a proposal for remediating this low-activity waste. Additionally, offerors will be given the option to provide a proposal to remediate one waste feed stream (envelope) of high-level waste feed.

A brief background discussion of the privatization strategy and additional information follow.

BACKGROUND

Radioactive waste has been stored in large underground storage tanks at the Hanford Site since 1944. Approximately 56 million gallons of waste containing approximately 240,000 metric tons of processed chemicals and 250 mega-curies of radionuclides are currently being stored in 177 tanks. These caustic wastes are in the form of liquids, slurries, saltcakes, and sludge. In 1992, the Tank Waste Remediation System (TWRS) Program was established to manage, retrieve, treat, immobilize, and dispose of these wastes in a safe, environmentally sound, and cost-effective manner.

The TWRS pathway for cleanup is formally documented in the Hanford Federal Facility Agreement and Consent Order, commonly known as the Tri-Party Agreement or TPA. Under the TPA, DOE, the U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology have agreed to a 30-year timetable for cleanup of the Hanford Site.

PRIVATIZATION STRATEGY

DOE believes that it is feasible to privatize portions of the TWRS Program. In pursuing the privatization concept, DOE is changing its traditional contracting approach. Since its inception, the TWRS Program contracting strategy has involved a Government-owned, contractor-operated facility operating under a cost-plus-award-fee contract. Under the privatization strategy embodied in the draft RFP, DOE will be purchasing services from a contractor-owned, contractor-operated facility under a fixed-price type of contract. DOE will be able to purchase an identifiable, measurable service that provides deliverables that are clearly specified. The contractor must finance the project; design the equipment and facility; apply for and receive required permits and licenses; construct the facility and bring it on-line; operate the facility to remediate waste; decontaminate and decommission the facility; and accomplish RCRA closure and site remediation. The contractor can recover the resources it has invested only through the delivery of acceptable services paid for by DOE on a fixed-unit-price basis. The underlying intent is to transfer from the Government to the contractor the primary share of the financial, performance, and operational responsibility for the remediation effort. This involves an allocation of project risks in an equitable manner that both protects the interests of the Government and encourages industry participation.

The concept employed in the draft RFP seeks to retain the usual privatization approach of minimal control by the customer (DOE) over the contractor's activities. However, because of the hazardous nature of the Hanford waste, the TWRS privatization must operate in a multi-tiered regulatory environment. DOE's approach is to utilize to the extent possible established and functioning external regulatory authorities without requiring the contractor to go through DOE. DOE, as regulator, will retain regulatory oversight responsibility for radiological and nuclear safety.

Phase I

This draft RFP covers only Phase I of the TWRS privatization strategy. Phase I is a proof-of-concept/commercial demonstration-scale effort whose objectives are to: demonstrate the technical and business viability of using privatized facilities to treat and immobilize Hanford tank waste; define and maintain required levels of nuclear, radiological, and occupational safety; maintain environmental protection and compliance; and substantially reduce life-cycle costs and time required to remediate Hanford tank waste. In this phase, approximately 6-13% of the Hanford tank waste will be treated. The Phase I effort consists of Part A and Part B.

Phase I, Part A

Phase I, Part A, is a twenty-month development period to establish the technical, operational, regulatory and financial elements required in privatized facilities that provide tank waste treatment and immobilization services on a fixed-unit-price basis. Of this twenty-month period, sixteen months will be used by the contractor to complete deliverables; four months will be utilized to evaluate, select and authorize performance for Part B.

It is anticipated that multiple offerors will be selected to perform Phase I, Part A, thus ensuring competition and facilitating cost control. Each contract specifies a single firm-fixed price for completion and delivery of all work covered by Phase I, Part A, at which time payment will be made. (An additional single firm-fixed price is specified relating to work covered by an option for high-level waste remediation services.)

Phase I, Part B

Phase I, Part B is a demonstration to provide tank waste treatment services at fixed unit prices. Four different waste envelopes are identified for Part B: three waste envelopes for pretreatment and immobilization as low-activity waste and one waste envelope for vitrification as high-level waste. These waste envelopes are representative of the range of Hanford tank waste. The demonstration period will range between 9 and 13 years. Wastes will be processed during a 5 to 9-year period of Phase I, Part B, and will result in 6 to 13 percent of the total tank waste being treated. Part B will conclude with completion of decontamination and decommissioning (D&D), RCRA closure, and site restoration (2 additional years).

Based on Phase I, Part A performance, one or more of the contractors who successfully performed Phase I, Part A, will each be authorized to perform waste treatment services for DOE in Phase I, Part B. The waste treatment services will be paid for by DOE on a fixed-unit-price basis as specified in each of the contracts. One of these contractors may provide the high-level waste vitrification services which are included in the draft RFP as an option.

Phase II

Phase II is not a part of this draft RFP, but is projected to be the subject of a future competitive solicitation. Phase II would be the full-scale production phase, in which the facilities would be configured so all of the remaining waste can be processed and immobilized on a schedule that will accommodate removing the waste in single-shelled tanks by the year 2018. The objectives of Phase II would be to: implement the lessons learned from Phase I; process all tank waste into forms suitable for final disposal; achieve price competition and cost savings throughout the Phase II effort; and meet or exceed the TPA benchmark performance milestones.

REQUEST FOR COMMENTS

DOE is issuing this draft RFP to solicit comments and suggestions aimed at developing and issuing a final RFP that provides a fair opportunity for all potential offerors, and enables DOE to receive the best possible proposals. In developing the draft RFP, DOE identified positions on the following issues:

- Labor preference. In order to facilitate the hiring preference objectives of Section 3161 of the National Defense Authorization Act for fiscal year 1993, and to provide employees of the incumbent workforce with retraining in the specialized skills required for operation of Phase I, Part B facilities, DOE is considering a requirement for the Management and Integration (M&I) contractor to establish a retraining program for a hiring pool of its employees to whom the Contractor would be expected to offer a right of first refusal in filling initial vacancies (other than managerial and supervisory positions) as defined in the RFP. One consequence of this consideration relative to employees in manual job classifications, is that the Contractor would be deemed a successor employer, under applicable law with the obligation to recognize and bargain with the representative of those employees, the Hanford Atomic Metal Trades Council (HAMTC).

  There are several apparent advantages of the training pool concept as follows: the opportunity to utilize the highly trained skills and abilities of incumbent employees, including their knowledge of special health and safety requirements at Hanford; the ability to draw on the valuable knowledge base of employees with extensive experience in chemical processing, waste handling and radiological safety practices; the availability to the Contractor of a fully qualified work force on a timely basis; and an orderly and smooth transition of employees to Phase I, Part B operations for incumbent employees.

- Applicability of Federal Labor Standards Statutes. DOE takes the position that the principal purpose of the contract is to furnish services to the Government through the use of service employees, and that therefore the Service Contract Act is applicable. Applicability of the Service Contract Act would begin when the Contractor commences delivery of waste treatment services after completion of construction of the Contractor's facility in Phase I, Part B. During the construction, the Davis-Bacon Act would apply. At this time, DOE does not consider the contract to be for the manufacture or furnishing of materials, supplies, articles, or equipment, and therefore the Walsh-Healy Public Contracts Act is not applicable.

- Regulation of occupational worker safety and health. The policy of DOE is to foster regulation of its activities by external regulators wherever practicable. DOE therefore believes it is reasonable to request either the federal Occupational Safety and Health Administration or the Washington State Industrial Safety and Health Administration to regulate the non-radiological occupational health and safety protection at the

privatized facility. Both agencies are formally established and effectively functioning (formal rules exist, and inspection and enforcement protocols are in place). Outside of the radiological and nuclear safety issues, the operation of the facilities involved are well within the standard range of industrial and chemical processing operations.

- Regulation of Radiological and Nuclear Safety. Generally, both DOE and the Nuclear Regulatory Commission (NRC) are authorized to exercise regulatory responsibility in the area of radiological and nuclear safety. However, neither agency presently has a set of established rules specifically governing the operations of the privatized waste separations and processing facilities. It was estimated that under existing NRC practices, it would take 5 to 7 years to have in place, a formal radiological and nuclear safety review and authorization process and bring it to completion. Therefore, using NRC to regulate the facility would make it difficult for DOE to fulfill its milestone commitments under the TPA. On the other hand, DOE believes that it can establish and implement the necessary regulatory framework in the time allowed by the TPA. Thus the draft RFP provides for DOE regulation in this area. It is anticipated that Phase II activities will be regulated by NRC.

- Allocation of risk between parties. DOE and industry both expect that there will be a realistic, well-defined and equitable allocation of risks involved in the contract work. DOE believes that incorporating such an allocation into the contract will produce cost savings for the Government and broader participation by qualified vendors. The draft RFP places certain risks on the Contractor, e.g., those relating to financing, technology, operations and regulatory compliance. Certain risks are placed on DOE, e.g., those relating to waste stream guarantees, government-furnished equipment and services, pre-existing conditions, excusable delays, and nuclear risk covered by the Price-Anderson Act. The draft RFP currently does not expressly address the allocation of such risks as force majeure, change in law and other uncontrollable circumstances beyond the coverage provided in standard government contract clauses (e.g., excusable delays and changes clause).

We are interested in your comments on all aspects of this solicitation as it is currently set forth in the draft RFP and this cover letter.

There are three areas of work activities that are not included in the statement of work of the draft RFP, but are under consideration for inclusion in the final RFP. Your views on inclusion of the following items are invited:

- storage by the contractor of products and by-products;

- processing and immobilization of an additional feed composed of dispositioned plutonium waste; and

- providing non-RCRA regulated final waste forms.

ADDITIONAL INFORMATION

This draft RFP will be made available to those who request it in writing to the address listed below. It is also available on the Internet at http://twins.pnl.gov:8001/remain.htm

A pre-solicitation conference and tour of the site will be held in Richland, Washington, for all interested parties who seek more information on the draft RFP. The conference will take place on Wednesday, November 29, 1995, through December 1, 1995. The tour will take place on November 30, 1995.

All comments (electronic form preferred) must be received by January 5, 1996. Please send your written comments and questions to:

Peter Rasmussen, Contracting Officer
U.S. Department of Energy
Richland Operations
P.O. Box 550
Mail Stop K6-51
Richland, Washington 99352

Telephone (509) 372-1849

Electronic comments must be received by Peter Rasmussen at the Internet address (peter_e_rasmussen@rl.gov) by January 5, 1996.

DOE is in the process of releasing the referenced supporting solicitation information at the DOE/RL Public Reading Room located at Washington State University, Tri-Cities Campus, 100 Sprout Road, Room 130 West, Richland, Washington.

As indicated above, you are strongly encouraged to provide your comments on the draft RFP, and to identify changes that are necessary or desirable to ensure the success of this endeavor. Once again, let me urge you to join us in our search for new ideas, new approaches, and new partners to help DOE achieve its goals and objectives.

Sincerely,

John D. Wagoner
Manager

Attachment
Draft RFP

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Section I. Contract Clauses

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Section J. List of Documents, Exhibits, and Other Attachments

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SECTION A

Solicitation/Contract Form

No. DE-RP06-96RL13308

November 1995

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SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	PAGE OF PAGE
▶		

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
	DE-RP06-96RL13308	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)		

7. ISSUED BY	CODE	8. ADDRESS OFFER TO *(If other than Item 7)*
U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, Washington 99352		

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or handcarried, in the depository located in See Section L.12 until _____ *(Hour)* local time _____ *(Date)*

CAUTION – LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: ▶	A. NAME	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*

11. TABLE OF CONTENTS

(√)	SEC.	DESCRIPTION	PAGE(S)	(√)	SEC.	DESCRIPTION	PAGE(S)
		PART I – THE SCHEDULE				PART II – CONTRACT CLAUSES	
X	A	SOLICITATION/CONTRACT FORM		X	I	CONTRACT CLAUSES	
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS				PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.	
X	C	DESCRIPTION/SPECS./WORK STATEMENT		X	J	LIST OF ATTACHMENTS	
X	D	PACKAGING AND MARKING				PART IV – REPRESENTATIONS AND INSTRUCTIONS	
X	E	INSPECTION AND ACCEPTANCE					
X	F	DELIVERIES OR PERFORMANCE		X	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	G	CONTRACT ADMINISTRATION DATA		X	L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
X	H	SPECIAL CONTRACT REQUIREMENTS		X	M	EVALUATION FACTORS FOR AWARD	

OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52-232-8)* ▶	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NO. *(Include area code)*	15C. ☐ CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:

☐ 10 U.S.C. 2304(c)( ) ☐ 41 U.S.C. 253(c)( )

23. SUBMIT INVOICES TO ADDRESS SHOWN IN ▶ *(4 copies unless otherwise specified)*	ITEM

24. ADMINISTERED BY *(If other than Item 7)*	CODE	25. PAYMENT WILL BE MADE BY	CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT – Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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SECTION B

Supplies or Services and Prices

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Section B Supplies or Services and Prices

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B.2 Part B (Firm-Fixed Price) 1

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Section B Supplies or Services and Prices

B.1 Part A (Firm-Fixed Price)

Completion of all requirements in accordance with Section C, paragraph C.4.1 of the *Statement of Work* including all associated data.

CLIN (Contract Line Item Number)

001 Technical and Business Demonstration for Low-Activity Waste Solidification:

$_____*

002 (OPTION) Technical and Business Demonstration for High-Level Waste Vitrification:

$_____**

*Note: The U.S. Department of Energy (DOE) will provide a ceiling amount at the time of release of the final Solicitation based on the DOE fair cost estimate for CLIN 001. DOE will not pay any more than the ceiling amount; therefore, each Offeror's firm-fixed price cannot be greater than the ceiling amount.

**Note: The Offeror is requested but not required to bid for this option. DOE will provide a ceiling amount at the time of release of the final Solicitation based on the DOE fair cost estimate for CLIN 002. DOE will not pay any more than the ceiling amount; therefore, each Offeror's firm-fixed price cannot be greater than the ceiling amount.

B.2 Part B (Firm-Fixed Price)

Completion of all requirements in accordance with Section C, paragraph C.4.2 of the *Statement of Work* including all associated data. Prices proposed for sub-CLINs 004A, 004B, 004C, and 005B shall be subject to adjustment under Section H, Clause H.25.

Unit prices for CLINs 003 and 004 are based on metric tons (MT) of sodium (Na) in the waste feed envelope to be processed. Unit prices for CLIN 005 are based on metric tons of waste oxides exclusive of Na and silicon (Si) in the waste feed envelope to be processed.

The Offeror shall propose Not-To-Exceed (NTE) prices for Part B, subject to downward-only adjustment.

CLIN			NTE Price/MT	Total NTE Price
003	Services for Low-Activity Waste: (Minimum Quantities)			
	003A	Waste Processing Services for Waste Envelope A of 2,600 metric tons sodium	$_____	$_____
	003B	Waste Processing Services for Waste Envelope B of 100 metric tons sodium	$_____	$_____
	003C	Waste Processing Services for Waste Envelope C of 100 metric tons sodium	$_____	$_____
004	Services for Low-Activity Waste: (Quantities in Excess of Minimum)			
	004A	Waste Processing Services for Waste Envelope A above minimum quantities	$_____	
	004B	Waste Processing Services for Waste Envelope B above minimum quantities	$_____	
	004C	Waste Processing Services for Waste Envelope C above minimum quantities	$_____	
005	(OPTION) Services for High-Level Waste			
	005A	Waste Processing Services for Waste Envelope D of 190 metric tons of waste oxides exclusive of Na and Si	$_____	$_____
	005B	Waste Processing Services for Waste Envelope D above minimum quantities of waste oxides exclusive of Na and Si	$_____	

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SECTION C

Description/Specifications/ Work Statement

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Section C Statement of Work

C.1 Introduction

The U.S. Department of Energy (DOE) Richland Operations Office is acquiring Hanford tank waste treatment and immobilization services at a demonstration scale using *privatized facilities* -- privately developed, financed, constructed, owned, operated, decontaminated, decommissioned, and closed under the requirements of the Resource Conservation and Recovery Act (RCRA).

The multiple phases of this procurement are identified as Part A and Part B:

Part A — a twenty-month development period to establish the technical, operational, regulatory, and financial elements required in privatized facilities that provide tank waste treatment and immobilization services at fixed unit prices. Of this twenty-month period, sixteen months will be used by the Contractor to complete deliverables; four months will be utilized to evaluate, select, and complete negotiations for Part B.

Part B — a demonstration to provide tank waste treatment services at a fixed unit price. Four different waste envelopes are identified for Part B: three waste envelopes for pretreatment and immobilization as low-activity waste and one waste envelope for vitrification as high-level waste. These waste envelopes are representative of the range of Hanford tank waste. This demonstration period will range between 9 and 13 years. Wastes will be processed during a 5 to 9 year portion of Phase I, Part B, and will result in 6 to 13 percent of the total tank waste being treated. Part B will conclude with completion of decontamination and decommissioning (D&D), RCRA closure, and site restoration (additional 2 years).

Primary objectives for this procurement are to demonstrate the technical and business viability of using privatized facilities to treat and immobilize Hanford tank waste; define and maintain required levels of nuclear, radiological, and occupational safety; maintain environmental protection and compliance; and, substantially reduce life-cycle cost and the time required to remediate Hanford tank waste.

Once successful performance is established at a demonstration scale, DOE plans a second phase to competitively award contract(s) for privatized facilities at a production scale for the remaining inventory of Hanford tank waste.

The *Statement of Work* is divided into eight sections: this introduction; a description of DOE interactions with the Contractor; a summary of the regulatory environment; a description of services and deliverables; standards for each deliverable; technical specification summaries; interface summaries; and a glossary.

C.2 Department of Energy Interactions with the Contractor

a. Under this procurement, DOE will have three distinct and separate responsibilities that define types of interaction with the Contractor:

1) As the customer, DOE will purchase a service to convert Hanford tank waste into durable forms suitable for disposal and/or interim storage and subsequent processing. Full management responsibility and accountability will be assigned to the Contractor: traditional methods of DOE-performed management and technical oversight will not be performed. The primary Contractor interaction with DOE will be to support interfaces between the Contractor-owned and DOE-owned facilities.

2) As the regulator for radiological and nuclear safety, DOE will determine that the Contractor's facilities and operations provide the required levels of public and worker protection against radiological and nuclear hazards. DOE will authorize the start of construction, the start of hot operations, and the start of decontamination and decommissioning. Contractor activities will be subject to the radiological and nuclear safety requirements of DOE. Requirements imposed on Contractor operations will be based on safety standards. The Contractor shall define and implement the necessary and sufficient standards and requirements specific to its process technologies and operations.

3) As the Hanford Site owner, DOE will require compatibility between Contractor and Hanford Site regulatory compliance actions when legal requirements require joint responsibility (DOE and the Contractor). When joint responsibility exists, the Contractor has primary responsibility and accountability for interactions with external regulators. When joint responsibility does not exist, the Contractor has full responsibility and accountability for interactions with external regulators.

b. DOE will balance the Contractor's need for autonomy under fixed-price contracting with DOE's need for information to support its customer, owner, and regulator responsibilities through the formation of Integrated Product Teams (IPTs). The IPT concept will work as follows:

1) DOE, the Privatization Contractor, and other Hanford Site contractors will work as equals in a climate of trust and mutual cooperation. The Contractor shall form these IPTs, using best commercial practices, at the beginning of Part A.

2) During the Contract, any IPT whose membership includes multiple contractors will be structured to protect the integrity of the competitive process. DOE intends to share information and data throughout the program using the IPT process. However, this information will always be advisory, not directive in nature, and will be offered as a way to foster better communications.

3) All formal reviews performed under this Contract will evolve directly from the IPT process.

C.3 Regulatory Environment

The Contractor shall be responsible for ensuring the protection of human health and the environment from radioactive and dangerous waste contamination and the protection of worker safety and health against conventional industrial and occupational hazards. Safety, health, and environmental protection activities are critical to the success of this Contract. The Contractor shall be responsible for compliance with all applicable Federal, state, and local environmental, safety, and health rules, regulations, and codes and standards, including: radiological and nuclear safety; occupational/industrial health and safety; environmental permitting, design, construction, operations, decontamination, decommissioning, RCRA closure; and transportation. Except as set forth elsewhere in this Contract, DOE will not take any significant role in the implementation and enforcement of compliance requirements related to environmental protection and occupational safety and health activities.

The regulatory environment for this Contract is structured into three principal areas of responsibility:

Radiological and Nuclear Safety

- DOE will regulate radiological and nuclear safety and nuclear materials safeguards, accountability, and control.

Occupational Safety

- The Occupational Safety and Health Administration (OSHA) or the Washington State Department of Industrial Safety and Health (WISHA) will regulate all worker safety and health activities.

Environmental Protection

- DOE will be responsible for compliance with the National Environmental Policy Act (NEPA). However, the Contractor shall submit to DOE technical information and supplemental analysis (NEPA C-2 Analysis) to determine if additional NEPA documentation is required for the privatized facilities. The Contractor shall be responsible for compliance with the State Environmental Protection Act (SEPA).

- The U.S. Environmental Protection Agency (EPA), Washington State Department of Ecology (Ecology) and Washington State Department of Health (DOH) will regulate radioactive and non-radioactive air emissions. The Contractor shall integrate its operations and requirements into the Hanford Site-wide air compliance framework.

- EPA and Ecology will regulate and administer all permits for treatment and storage operations under RCRA. All RCRA permits shall be signed by the Contractor and will be signed by DOE where required.

- Ecology, DOH and/or local agencies will regulate domestic sewage discharges to the soil column. No other types of liquid discharges shall be allowed to the soil column.

- The U.S. Department of Transportation (DOT) and Ecology will regulate transportation of radioactive and dangerous wastes. The Contractor shall coordinate with other Hanford Site contractors when wastes are being transported.

- Some environmental compliance activities, such as permitting and waste dispositioning, may require integration with other Hanford Site contractors.

C.4 Description of Services and Deliverables

The format of this Subsection is to identify specific deliverables for Part A and Part B and to establish specific requirements for these deliverables in *Standards*, *Technical Specifications*, or *References*. Best commercial practices shall apply where a *Standard*, *Technical Specification*, or *Reference* is not provided.

Part A deliverables are identified in Paragraph C.4.1. In Part A, the Contractor establishes the technical, operational, regulatory, and financial elements required in privatized facilities that provide tank waste treatment and immobilization services at fixed unit prices.

Part B deliverables are identified in Paragraph C.4.2. In Part B, the Contractor provides tank waste treatment services at fixed unit prices. Figure C-1, *Privatization Functions, Inputs, and Outputs*, summarizes the privatization concept, responsibilities, and interfaces between the Contractor and DOE during Part B. The privatization concept includes the following key elements:

- The Contractor shall receive tank waste from DOE in an existing double-shell tank, retrieve and transfer the waste to a Contractor facility;

- The Contractor shall separate three waste envelopes into high-level and low-activity fractions;

- The Contractor shall immobilize the low-activity fraction as a product for return to DOE (*see* Specification 2, *Immobilized Low-Activity Waste)*;

- The Contractor shall separate the high-level fraction into separate products for return to DOE (*see* Specification 3, *Entrained Solids*; Specification 4, *Cesium*; Specification 5, *Technetium;* and Specification 6, *Strontium and TRU*);

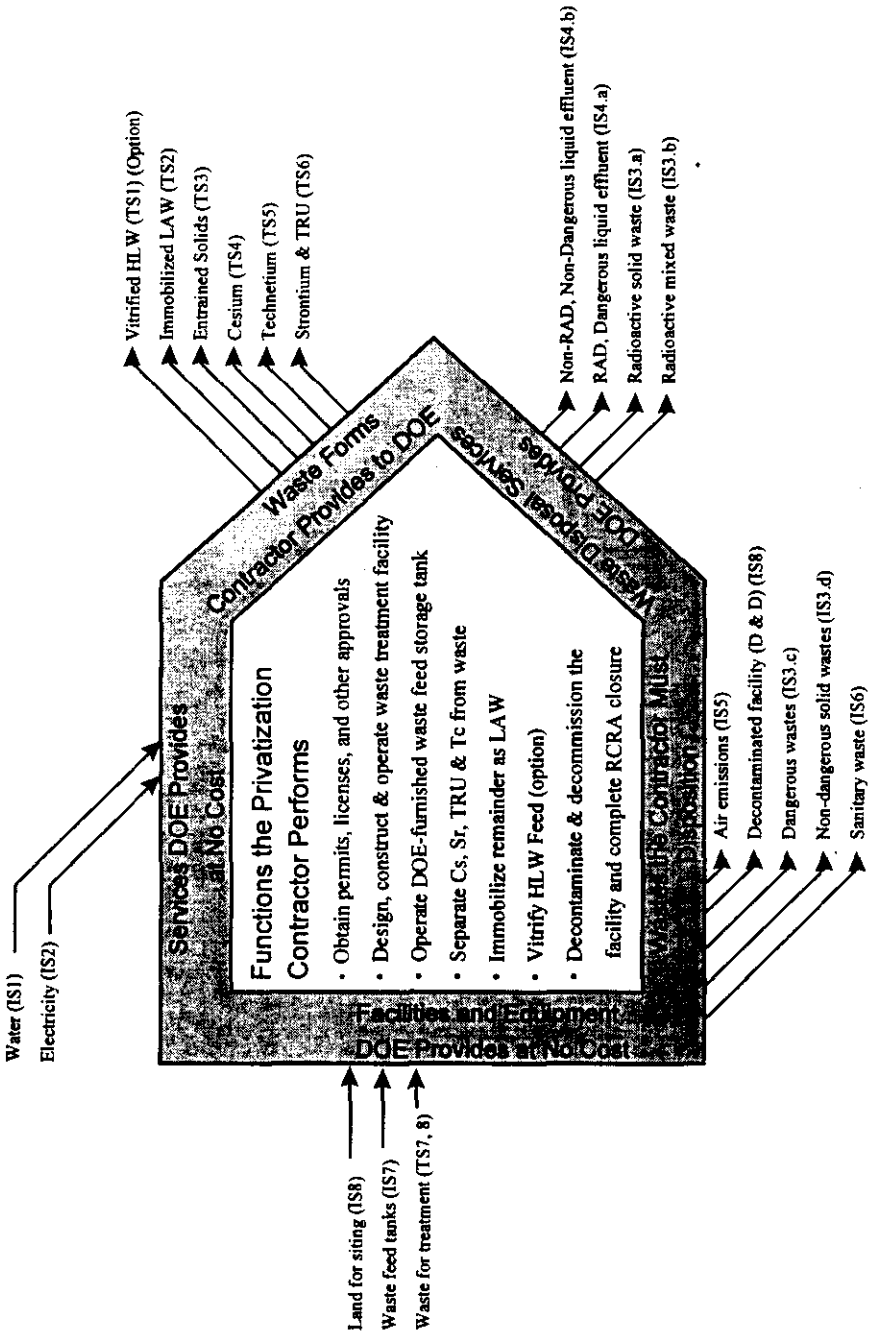
- (optional) — The Contractor shall treat and vitrify one waste envelope as a product for return to DOE (*see* Specification 1, *Vitrified High-Level Waste*);

- The Contractor shall decontaminate and decommission, RCRA close, and restore the site;

- DOE will provide the services identified in Figure C-1, *Privatization Functions, Inputs, and Outputs*, and described in Subsection C.7, *Interface Summaries*; and

- DOE will retain title to all waste provided to the Contractor.

All paper deliverables in Part A and Part B shall be submitted in accordance with Standard 1, R*eports, Drawings, and Schedules.*



Note: Parenthetical references are to Interface Summaries (IS) or Technical Specification Summaries (TS).

Figure C-1. Privatization Functions, Inputs, and Outputs

C.4.1 Part A

The Contractor shall provide the deliverables and services described in Table 4-1, *Part A Deliverables and Services*:

Table 4-1, Part A Deliverables and Services — CLIN 001 and CLIN 002 (Option)

Item No.	Description of Deliverable or Service	Standard/Reference	Action Required	Action Party	Point of Delivery
A-1	Project Master Schedule	Standard 1	P	D	CO
A-2	Technical Report	Standard 2	P	D	CO
A-3	Product Qualification Plan (PQP) for • Low-activity Waste and Separated Radionuclides • High-level waste (Contract Option)	 • Standard 3 • WAPS/WASRD	 P, A P, A	 D, R D, R	 CO, R CO, R
A-4	Regulatory Compliance Program	Section C.3 and Standard 4	P, A	D, R	CO, R
A-5	Business Implementation Plan	Standard 5	P	D	CO

Legend

A = Review and Approve
CO = Contracting Officer
D = DOE
H = Hanford Site contractor
P = Product Acceptance
R = Regulator

C.4.2 Part B

The Contractor shall provide deliverables and services described in Table 4-2, *Part B Deliverables and Services*:

Table 4-2, Part B Deliverables and Services — CLIN 003, CLIN 004 and CLIN 005 (Option)

Item No.	Description of Deliverable or Service	Standard/Reference	Action Required	Action Party	Point of Delivery
B-1	Project Master Schedule	Standard 1	P	D	CO
B-2	Implement Product Qualification Plan (PQP) for • Low-activity Waste and Separated Radionuclides • High-level waste (Contract Option)	• Standard 3 • WAPS/WASRD	P, A	D, R	CO, R
B-3	Implement Regulatory Compliance Program	Section C.3 and Standard 4	P, A	D, R	CO, R
B-4	Immobilize Low-activity Waste	Specification 2 and Standard 6	P	D	H
B-5	(Contract Option) Vitrify High-level Waste	Specification 1 and Standard 6	P	D	H
B-6	Separate Radionuclides	Specifications 3, 4, 5, 6 and Standard 6	P	D	H

Legend

A = Review and Approve
CO = Contracting Officer
D = DOE
H = Hanford Site contractor
P = Product Acceptance
R = Regulator

C.5 Standards

This Subsection consists of the following Standards:

Standard 1:	Reports, Drawings, and Schedules
Standard 2:	Technical Report
Standard 3:	Development and Qualification of Low-Activity Waste and Separated Radionuclides (Entrained Solids, Cs, Tc, Sr, and TRU)
Standard 4:	Regulatory Compliance Program
Standard 5:	Business Implementation Plan
Standard 6:	Product and Operations Reports

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Standard 1: Reports, Drawings, and Schedules

a. All reports, drawings, and schedules shall be prepared as follows:

1) legible, sequentially numbered, and securely bound;

2) all text presented in clear, concise English; and

3) one reproducible hard copy and one electronic copy submitted (with software/version identified).

b. Reports shall be prepared and submitted as follows:

1) title page or cover sheet that identifies author, deliverable, and date;

2) text on standard 8 1/2" x 11" letter size paper; one-way foldouts of larger sizes may be included with report text;

3) table of contents;

4) summary section with introduction, summary, and conclusions;

5) detailed section with all required information; and

6) the minimum text required to present information. (The use of concise technical writing formats is strongly encouraged.)

c. Drawings shall be prepared and submitted in accordance with ANSI/ASME Standard Y-14 series.

d. Project Master Schedules shall be prepared and submitted as follows:

1) Gantt chart format showing order/interdependence of activities that support major performance milestones in Part A and Part B;

2) a paragraph description, duration, start and finish dates, predecessor/successor activities, and method of performance for each activity;

3) all major performance milestones, regulatory compliance milestones, design, construction, start-up and production milestones, any activity with a duration greater than 3 months or estimated to account for more than 5 percent of the total project effort, and time-phased information required to manage interfaces identified in Figure C-1, *Privatization Functions, Inputs, and Outputs*; and

4) quarterly updates, or as necessary, to maintain current and accurate definition and status of Part A and Part B activities.

Standard 2: Technical Report

The technical report shall contain the following information:

a. a detailed description of the separations and immobilization processes, including objective evidence that:

1) proposed separations processes are capable of separating the Hanford tank waste feed stream into separate low-activity and high-level streams, including specific information on the: effectiveness of fission product removal and its variation with chemical (e.g., Na/Cs or K/Cs ratio) and physical conditions (e.g., particulate loading) of waste feed, capability of separating suspended solids from the primary waste feed, and effects of organic constituents on the separation efficiency and the transfer of transuranic materials into the low-activity waste;

2) proposed immobilization processes are capable of producing a durable solid that meets performance specification requirements;

3) proposed processes can be scaled to meet Part B requirements of the Contract for waste treatment and future requirements for a production-rate capability ten times greater than that for the Part B demonstration-scale facility;

4) the proposed waste treatment service can treat the full range of Hanford tank waste feed streams;

Note: The Contractor may demonstrate this requirement by one of two methods: 1) a detailed comparison of Hanford tank waste feed to wastes being treated in current Contractor facilities operating at a demonstration or production scale, or 2) a separations and immobilization process technology demonstration on each of the four waste envelopes at a minimum of bench-scale; and

5) the proposed facility has the capability to manage, treat, or dispose of secondary waste generated from proposed processes (i.e., liquid, solid, and gaseous); and that the secondary wastes returned to DOE meet interface requirements defined in Section C.

b. a detailed description of intermediate and final products to be delivered to DOE from the proposed waste treatment system, including their form, quantity, composition, and capability to be disposed as low-activity or high-level waste;

c. a detailed description of testing protocols used to demonstrate how products meet the technical specifications, how out-of-specification products will be managed and dispositioned, and preferred product acceptance and payment bases;

d. process and facility design bases;

e. a process flowsheet for each waste envelope including mass balance, preliminary equipment selection, equipment performance, and equipment service life;

f. a reliability, availability, maintainability, and inspectability analysis; ability of the waste processing technology and proposed equipment to meet the waste form performance specification as a function of throughput rate up to the nameplate capacity;

g. a description of facility concept and design life;

h. a description of design features to facilitate decontamination and decommissioning and RCRA closure; and

i. general facility arrangement drawings.

Standard 3: Development and Qualification of Low-Activity Waste and Separated Radionuclides (Entrained Solids, Cs, Tc, Sr, and TRU)

a. The Contractor shall be responsible for developing, qualifying, and producing a waste product that meets the requirements of the Contract.

b. The Contractor shall prepare a *Product Qualification Plan* to include, for each waste product to be delivered to DOE:

1) a description of the proposed product (including chemical composition, physical properties, and a comparison of its characteristics to the requirements of the Contract);

2) laboratory-scale testing to evaluate the impacts of variations in composition and processing conditions (including temperature, flow rate, solution pH) on product properties;

Note: This testing shall address the effects of variability expected to be encountered during normal operations, as well as the effects of variability that may be encountered within bounding operations.

3) preparation and product qualification testing of prototype waste forms prepared from samples of each waste envelope;

4) scale-up testing, including radioactive and non-radioactive process testing and product qualification-related activities to be conducted during hot-startup testing of the Contractor's facility;

5) method(s) the Contractor shall use to verify that products produced during waste processing operations meet the requirements of the Contract (including analysis/testing of production samples, process knowledge/control), and the statistical uncertainty associated with these method(s);

6) a description of the documentation that shall accompany products transferred to DOE during waste processing operations that certifies their compliance with the requirements of the Contract;

7) a schedule that indicates when the various activities of the *Product Qualification Plan* shall be completed and documented; and

8) a description of the documentation that shall be provided to DOE to demonstrate and report the completion of all work required to implement the *Product Qualification Plan.*

c. During waste processing operations, the Contractor shall transfer products to DOE that meet the requirements of the Contract; these products shall be accompanied by documentation that certifies their compliance with the requirements of the Contract.

d. DOE will establish, implement, and maintain a program to verify that the products transferred by the Contractor to DOE conform to the requirements of the Contract.

e. DOE will not accept any products found to be out of compliance with the requirements of the Contract.

Standard 4: Regulatory Compliance Program

In a commercial environment, a contractor would be required to execute high-level waste processing under a license from the Nuclear Regulatory Commission (NRC). Under this procurement, however, processing of high-level radioactive waste by a Contractor in privatized facilities will be done under the regulatory authorization and control of the Department of Energy (DOE). DOE will establish the TWRS Office of Radiological and Nuclear Safety for the specific purpose of regulating the radiological and nuclear safety aspects of the Contractor's waste processing operations. The TWRS Office of Radiological and Nuclear Safety will be the Contractor's single point of contact for radiological and nuclear safety regulation. This Office will establish and identify the specific requirements for radiological and nuclear safety for the Contractor providing processing and immobilization services of Hanford tank wastes and will be responsible for defining and implementing

the regulatory process for authorizing the work and confirming its compliance with the radiological and nuclear safety requirements and standards.

Many of the basic documents necessary to define the specifics of the DOE Radiological and Nuclear Safety regulatory framework for the Contractor's activities are not currently in existence. A regulatory document tier will be tailored to the situation and developed concurrently with the preparation of the Contractor's proposal. Due to the limited experience regulating high-level waste processing and the limited knowledge of contractor technologies, it is not possible to identify an inclusive and effective set of standards and requirements for effective radiological safety prior to the release of the final *Request for Proposals*.

a. The Contractor shall be required to recommend for DOE approval the standards and requirements that will be necessary to ensure, on a technical basis, the safety of the facilities that it will operate. The general concepts of the requirements to be imposed within the regulatory framework are presented in the following four draft documents:

   1) *Concept of the DOE Self-Regulatory Process for Radiological and Nuclear Safety for TWRS Privatization Contractors*, Revision A, November 1995;

   2) *Top-Level Radiological and Nuclear Safety Standards and Principles for TWRS Privatization Contractors*, DOE/RL-TLSR, Revision G, November 1995;

   3) *Guide to Establishing a Set of Essential Radiological and Nuclear Safety Standards and Requirements for TWRS Privatization*, DOE/RL-STDP, Revision C.2, November 1995; and

   4) *DOE Self-Regulatory Process for Radiological and Nuclear Safety for TWRS Privatization Contractors*, DOE/RL-DSRP, Revision C.2, November 1995.

b. Contractors operating facilities defined as nuclear facilities on behalf of DOE for which Price Anderson Indemnification coverage is applied, unless exempted, shall comply with the specific nuclear safety rules (10 CFR 800 series). These requirements will be integrated as required elements in the radiological and nuclear safety regulatory process.

c. The process for establishing the fundamental basis and regulatory control process for radiological and nuclear safety will consist of two elements:

   Element 1: identification of specific standards and requirements which will be based on two items: 1) a set of top-level standards (in this case, radiation exposure to the general public and workers), and 2) the fundamental nuclear safety principles established over the past 40 years; and

Element 2: development of the formal regulatory framework to be used by the TWRS Office of Radiological and Nuclear Safety for approving the standards and requirements, authorizing the start of construction, start of hot operations and the start of decontamination and decommissioning; and confirming conformance with the standards.

Once the essential set of radiological and nuclear safety standards and requirements have been formally approved by the TWRS Office of Radiological and Nuclear Safety, the Contractor shall conform to the standards and requirements. It should be noted that DOE-approved nuclear safety rules related to the Nuclear Hazard Indemnification shall be in force from execution of the Contract.

d. The Contractor shall provide the following deliverables shown in Table S4-1, *Regulatory Compliance Program Deliverables*, during Part A or Part B, as required:

Table S4-1, Regulatory Compliance Program Deliverables

Description of Regulatory Compliance Program Deliverable	Reference	Part A Deliverables	Part B Deliverables	
			Start of Construction	Start of Hot Operations
Process & Facility Design Description	DOE/RL-DSRP Standard 2	Draft	Final	Revision
Integrated Standards-Based Safety Management Plan	DOE/RL-STDP DNFSB 95-2	Draft	Final	Final
Hazards Analysis	DOE-STD-3009	Final	Revision 1	Revision 2
Standards and Requirements Identification Document	DOE/RL-STDP	Final	Final	Final
Radiation Exposure Standard for Workers Under Accident Conditions	DOE/RL-TLSR	Draft	Draft	Final
Quality Assurance Rule	10 CFR 830.120	Final	Final	Final
Training & Qualification Program Plan	10 CFR 830.330	Draft	Final	Revision 1
Safety Analysis Report	10 CFR 830.110	Preliminary Draft	Preliminary Draft, Rev. 1	Final
Unreviewed Safety Questions Plan	10 CFR 830.112	Draft	Final	Final
Occurrence Reporting & Processing of Operating Information Plan	10 CFR 830.350	Draft	Final	Final
Contractor Occupational Medical Plan	DOE Order 440.1	—	Draft	Final
On-site Transportation of Radioactive Materials Plan	DOE Order 460.1	Draft	Draft	Final
Employee Concerns Management System	DOE Order 5480.29	Final	Final	Final
Hazardous and Mixed Waste Handling Plan	DOE Order 5400.3	—	Final	Final

Table S4-1, Regulatory Compliance Program Deliverables, *continued*

Description of Regulatory Compliance Program	Reference	Part A Deliverables	Part B Deliverables	
			Start of Construction	Start of Hot Operations
RCRA Part B Permit Application	WAC 173-303-806	Final	Final Approved	--
NEPA C-2 Analysis (Supplement)	10 CFR 1021.314(c)	Draft	Final	--
Regular Operational Regulatory Reports	DOE/RL-DSRP	Draft	Final	Final
Conduct of Operations Plan	10 CFR 830.310	--	Final	Final
Technical Safety Requirements Document	10 CFR 830.320	Draft	Construction Draft	Final
Maintenance Management Program Plan	10 CFR 830.340	--	Draft	Final
Operational Readiness Review Plan	DOE/RL-DSRP	--	Draft	Final
Backfit/Plant Modification Plan	DOE/RL-DSRP	Draft	Final	Final
Emergency Response Plan	See Note [1] below.	--	Draft	Final
Safeguards and Security Plan	See Note [2] below.	Draft	Final	Final
Radionuclides and Hazardous Constituents Accountability Plan	See Note [3] below.	--	Final	Final
Financial Viability for D&D	DOE/RL-DSRP	Draft	Final	Final
Decontamination & Decommissioning/RCRA Closure/Site Restoration Plan	DOE/RL-DSRP	--	Final	Final

[1] *Emergency Response Plan* shall comply with requirements of 40 CFR 68, 40 CFR 355, and DOE/RL 94-02, Revision 1.

[2] *Safeguards and Security Plan* shall comply with requirements contained in the *Top-Level Safeguards and Security Requirements for TWRS Privatization* (*see* Section J).

[3] *Radionuclides and Hazardous Constituents Accountability Plan* establishes the materials accountability basis for DOE to audit by weight and composition all radionuclide and hazardous constituents in the facility. This is the documentation of material balances to assure no release of radiological and hazardous constituents.

Standard 5: Business Implementation Plan

a. The Business Plan for implementing the Part B work shall, as a minimum, include the following:

1) the revised downward adjusted fixed unit price structure covering all prices for treatment services to be paid by DOE;

2) any incentive features that would provide DOE with a more favorable arrangement than is presently included in the Contract;

3) any proposed changes in or additions to other Contract terms and conditions deemed necessary, in the opinion of the Contractor, to obtain more reasonable project financing terms;

4) the detailed text of any performance guarantees which the Contractor will provide if authorized to perform Part B work. This should include any such guarantees that are a part of the Contractor's Financing Plan (*see* paragraph 5.b., below);

5) any changes to the following types of information previously furnished to DOE as part of the source selection process: company/team organizational structure; project roles and responsibilities; debt ratings; equity positions;

6) demonstration of the Contractor's approach to and understanding of the development of a detailed and complete life-cycle cost estimate, description of any innovative techniques to be employed, and a detailed life-cycle cost estimate for the facility; and

7) for each year of the project, an estimate of the Government funds necessary to cover a termination settlement in the event DOE terminates for its convenience the Part B work.

b. The Business Plan shall contain a detailed Financing Plan which shall, as a minimum, include the following:

1) a description of the plan for financing all aspects of the Part B work, including: permitting, detailed design, construction, test operation, operation, decontamination and decommissioning and RCRA closure;

2) sources of all funds and their related mechanisms, including: equity, senior debt (both taxable and non-taxable), subordinate debt, guarantees, letters of credit, and performance bonds;

3) a description of any contingencies incorporated into the Plan and identification of any reserves to be set aside from project financing to cover potential problems;

4) identification of the participants in each aspect of the Plan, a summary of the level of commitment of each participant, and any restrictions, indemnifications or covenants required by such participants;

5) a discussion of the debt financing structure and proposed debt coverage ratios;

6) identification of the steps and schedules for closing the financing should the Contractor be authorized to perform the Part B work; and

7) a letter of firm commitment from each equity participant and each investor/lender, including enumeration of all applicable contingencies.

Standard 6: Product and Operations Reports

a. The Contractor shall provide documentation for each product shipment (vitrified high-level waste, immobilized low-activity waste, entrained solids, cesium, technetium and strontium/TRU) as required to certify compliance with the requirements of the Contract. Documentation shall be transmitted to the Contracting Officer two weeks prior to product shipment and shall include all information requested in the technical specification and the information described in the *Product Qualification Plan* (Standard 3, paragraph b.6 for low-activity waste and separated radionuclides; the WAPS/WASRD for the vitrified high-level waste).

b. After the startup of the Contractor's facility, the Contractor shall provide monthly operations reports to DOE using the Integrated Product Team process. The monthly reports shall contain operations information necessary to measure the progress of the Contractor, including:

1) Quantitative material balances around the facility for the major components of interest including low-activity waste feed, high-level waste feed, vitrified high-level waste, immobilized low-activity waste, entrained solids, cesium, technetium, strontium/TRU, and process effluents. The mass balance for each stream should include composition (mass and curie), total mass and volume, and number of shipments.

2) Operations information including facility throughput/total operating efficiency, down-time due to scheduled or unscheduled maintenance, unusual occurrences, and facility modifications required for change in waste envelopes.

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C.6 Technical Specification Summaries

This Subsection consists of technical specification summaries for:

a. waste forms the Contractor provides to DOE, as shown in Figure C-1, *Privatization Functions, Inputs, and Outputs* —

Specification 1:	Vitrified High-Level Waste
Specification 2:	Immobilized Low-Activity Waste
Specification 3:	Entrained Solids
Specification 4:	Cesium
Specification 5:	Technetium
Specification 6:	Strontium and TRU

b. waste for treatment —

Specification 7:	Low-Activity Waste Envelope Definition
Specification 8:	High-Level Waste Envelope Definition

Note: Detailed technical specifications are available in draft form and, when completed, will be included as part of the final Solicitation.

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Specification 1: Vitrified High-Level Waste

The high-level waste (HLW) form shall be a borosilicate glass form in an austenitic stainless steel canister which meets all of the product systems requirements and product specifications cited in DOE/RW-0351P, Revision 01, May 1994, *Waste Acceptance System Requirements Document* (WASRD), and DOE/EM-0093, Revision 01, May 1995, *Waste Acceptance Product Specifications for Vitrified High-Level Waste Forms* (WAPS). The first cited document, DOE/RW-0351P, is the senior controlling document and documents the minimal set of requirements and associated limits regarding DOE-RW acceptance of an immobilized HLW product for repository disposal. The second cited document, DOE/EM-0093, was derived from the first and provides what the DOE-EM considers to be the minimal set of specifications to ensure acceptance for repository disposal by DOE-RW.

a. Key requirements include:

1) The HLW shall be packaged in a 0.61 m diameter by 3 m long austenitic stainless steel canister, filled with glass to at least 0.6 m^3 or 80% of the internal volume of the empty canister, whichever is greater, be void of free liquids, pyrophoric, combustive or explosive materials (49 CFR 173), be subcritical under all conditions, have a maximum product temperature less than 400°C after initial cooling, and have a maximum heat generation less than 1500 W/canister.

2) The normalized release of B, Li, Na and Si from the HLW form as determined by a Product Consistency Test (ASTMC 1285-94) shall be less than the release of these elements from the reference EA glass (DOE/EA 0179).

3) The HLW form shall contain as a minimum, averaged over the immobilization run of a given waste feed, 25% by weight of non-volatile components originating in the feed on an equivalent oxide basis. No credit shall be given for Na_2O and SiO_2 in the waste feed toward the calculated percent waste loading in the product glass.

4) Waste glass (product) samples shall be taken during production and provided to DOE for independent confirmation testing of compliance with acceptance specifications.

5) The HLW qualification program shall be developed in accordance with the QA requirements set forth in DOE-RW-0333P.

Specification 2: Immobilized Low-Activity Waste

The immobilized low-activity waste (ILAW) form shall be a durable solid suitable for shallow land disposal. The product will be packaged in a sealed steel container. The product package may contain an optional matrix for waste encapsulation and/or a filler material.

a. Key product requirements include:

1) The average fractional radionuclide release rate shall be less than 2.8 E-14(s^{-1}) of Tc-99 and less than 1.4 E-13(s^{-1}) for Se-79, I-129, Np-237, and uranium isotopes. The basis for fractional release rate determination shall be the radionuclide inventory remaining in the liquid fraction of waste processed following solid/liquid separations. For silicate glass, release rate shall be determined by the product of: a) corrosion rate (Product Consistency Test (PCT), ASTMC 1285-94; 7 days at 20°C); b) surface area to volume ratio; and c) fraction of radionuclide inventory solidified. The Contractor must identify how release rate is to be determined for other waste forms.

2) The radionuclide concentration of the ILAW form shall be less than Class C limits (10 CFR 61); and individual radionuclide concentrations of Cs < 3 Ci/m^3, Sr < 20 Ci/m^3, Tc < 0.3 Ci/m^3 on a volume averaged basis.

3) The ILAW form shall not be prohibited from land disposal within the state of Washington. The Contractor shall document and certify that the ILAW form meets this requirement.

4) The compressive strength shall be a minimum of 3.45 E6 Pa.

5) The ILAW form shall be resistant to thermal, radiation, biodegradation and immersion degradation, with a leach index of greater than 6.0 by ANSI/ANS 16.1 procedure.

6) The chemical composition of each package of ILAW shall be reported for elements (excluding oxygen) present in concentrations greater than 0.5 wt%. The Contractor shall report Tc-99 at concentrations greater than 0.003 Ci/m^3: all other radionuclides to be reported per NUREG/BR-0204.

7) The Contractor shall ensure that ILAW complies with, and all activities are performed in accordance with, the QA requirements contained in NUREG-1293.

b. Key package requirements include:

1) The package shall be a nominal 1.8 x 1.2 x 1.2 m steel container weighing not more than 10,000 Kg which is compatible with forklift and crane movement and able to withstand a compression load of not less than five times weight (49 CFR 173), and sealed to 1.2 E-5 Pa $\cdot m^3 \cdot s^{-1}$ (ANSI N14.5).

2) The maximum surface dose rate shall be less than 1000 mRem/hour. External contamination levels shall be less than 2200 dpm/100cm^2 beta-gamma, < 220 dpm/100 cm^2 alpha (10 CFR 71.87).

3) The package shall contain no free liquids, pyrophoric or explosive items, nor generate toxic or explosive gases.

4) The void and headspace shall not exceed 1% of the total internal package volume. A non-compactible, compatible filler material (screened to 4 mesh or smaller) may be used to meet this requirement.

5) A maximum of 200 cm^3 package volume (external dimensions) shall be returned per gram-mole of waste sodium processed. Acceptance of additional package volume and the costs for accepting the additional quantities will be negotiated on a case-by-case basis. Incentives for package volumes less than the maximum will be considered.

6) The maximum package surface temperature shall be less than 50°C when presented for acceptance.

7) The package shall be uniquely identified with a label referencing all production records. Both the container and label shall have a minimum 50 year durability.

8) The Contractor will load the ILAW package into a DOE supplied transport container and onto a DOE-supplied truck.

c. Key processing requirements include:

The Contractor shall process Waste Envelopes A, B and C (*see* Specification 7*)* in a manner such that the remaining waste forms the Contractor provides to DOE (Entrained Solids, Cesium, Technetium, Strontium and TRU), do not impact the volume of future HLW glass beyond a *reference volume of HLW glass* as delineated below.

1) The reference volume of HLW glass shall be calculated as follows:

(a) The Curie content of Cs processed and returned to DOE or its agents as product (*see* Specification 4) shall be determined;

(b) A resulting heat load shall be calculated on the basis of 4.8 milliwatts per Curie of Cs product; and

(c) A reference volume of 1.1 Kg of HLW glass per watt of Cs product will be calculated. The maximum impact of future HLW glass volume will be limited to this amount.

2) The Contractor shall demonstrate that the maximum impact to future HLW glass volume calculated in Specification 2.c.1 is not exceeded through the following methodology:

(a) The composition and quantity of all added constituents to the above streams shall be documented and provided to DOE.

(b) Based on the combined elemental composition of all returned products (entrained solids, cesium, technetium, strontium, and TRU), the Contractor shall demonstrate that a borosilicate HLW glass could be produced meeting the following requirements without exceeding the reference HLW volume constraint described in Specification 2.c.1.

Viscosity at 1150°C: 2 to 10 Pa·s
Electrical Conductivity: 10 to 1100 S/m at 1150°C
Liquidus Temperature: < 1050°C
7-day, 90°C PCT Normalized Releases

Boron	< 8.5 g/m2
Lithium	< 4.9 g/m2
Sodium	< 6.6 g/m2

(c) During the processing of LAW, the Contractor shall not knowingly add beyond nominal contamination levels any quantity of the following materials without prior consent from DOE:

Radioactive Substances
RCRA listed organics
Noble Metals
Organic Complexants
RCRA Metals (Silver, Arsenic, Barium, Cadmium, Chromium, Mercury, Lead, Selenium)
Nickel, Copper, Gold, Iodine

Specification 3: Entrained Solids

Entrained solids removed from Waste Envelopes A, B, and C will be accepted by DOE according to the following:

a. The entrained solids shall be acceptable for pipeline transfer (specific gravity, viscosity, solids content, pH range, operating temperature, velocity, scaling, etc.). The pipeline shall not plug during transfer.

b. The product shall be limited to 0.05 g/gallon and 200 g/transfer of Pu.

c. At least 95% of the solubilized metals shall be separated from the filtered solids.

d. There shall be no potential for exothermic reaction.

e. A separate organic phase shall not exist.

f. The elemental composition shall be provided for all elements constituting more than 0.5% by weight (dry basis) of the final contents.

g. Chemical additions during processing are limited to those identified in the DOE *Hanford Facility Dangerous Waste Part A Permit for Double-Shell Tanks.*

h. Hydroxide and nitrite composition shall comply with limits in Section 4.1, Corrosion Control, of WHC-SD-WM-EV-053, Rev. 1.

i. Material shall be critically safe and stable.

Specification 4: Cesium

Separated radioactive cesium will be accepted by DOE according to the following:

a. Cesium-137 shall be provided as a dry, free flowing product in a container with a 50-year storage life.

b. The product shall:

1) not have the potential for exothermic reaction;

2) not contain >1% of the total Tc-99 delivered to Contractor; and

3) be limited to 100 nCi/g of TRU.

c. The elemental composition shall be provided for all elements constituting more than 0.5% by weight of the final contents and Contractor additives shall be reported in total.

d. The container shall be a right circular cylinder and fabricated of stainless-steel. Its dimensions shall be less than 54 inches long and less than 13 inches in diameter.

e. Each container shall:

1) not exceed 2 kW of radiolytic heating;

2) not exceed external dose limits of 10^5 Rem/hr gamma and 10 Rem/hr neutron;

3) be compliant with 10 CFR 71.87 (contamination levels);

4) not contain flammable mixtures of gases at any time during the 50-year storage period (a catalyst recombiner/rupture disk will be allowed);

5) pass the helium leak-rate test prescribed by ANSI N14.5;

6) comply with 49 CFR 173.24, 49 CFR 173.411, 49 CFR 173.412 and pass the test delineated in 49 CFR 173.465; and

7) be loaded by the Contractor into a DOE-supplied transport container and onto a DOE-supplied truck.

f. The container design pressure shall be determined in accordance with *ASME Boiler and Pressure Vessel Code*, Section III, Division I Subsection ND and shall not be exceeded during the 50-year storage period.

Specification 5: Technetium

Separated radioactive technetium will be accepted by DOE according to the following:

a. Technetium-99 shall be provided as a dry, free flowing product in a container with a 50-year storage life.

b. The product shall:

1) not have the potential for exothermic reaction;

2) not contain >1% of the total Cs-137 delivered to Contractor; and

3) be limited to 100 nCi/g of TRU.

c. The elemental composition shall be provided for all elements constituting more than 0.5% by weight of the final contents and Contractor additives shall be reported in total.

d. The containers shall be a right circular cylinder and fabricated of stainless steel. Its dimensions shall be less than 54 inches long and less than 13 inches in diameter.

e. Each container shall:

1) not exceed 2 kW of radiolytic heating;

2) not exceed the external dose limit of 1000 mRem/hr at contact;

3) be compliant with 10 CFR 71.87 (contamination levels);

4) not contain flammable mixtures of gases at any time during the 50-year storage period (a catalyst recombiner/rupture disk will be allowed);

5) pass the helium leak-rate test prescribed by ANSI N14.5;

6) comply with 49 CFR 173.24, 49 CFR 173.411, 49 CFR 173.412 and pass the test delineated in 49 CFR 173.465; and

7) be loaded by the Contractor into a DOE-supplied transport container and onto a DOE-supplied truck.

f. The container design pressure shall be determined in accordance with *ASME Boiler and Pressure Vessel Code*, Section III, Division I Subsection ND and shall not be exceeded during the 50-year storage period.

Specification 6: Strontium and TRU

Separated radioactive strontium and TRU will be accepted by DOE according to the following:

a. Strontium/TRU shall be delivered via pipeline.

b. The product shall be acceptable for pipeline transfer (specific gravity, viscosity, solids content, pH range, operating temperature, velocity, scaling, etc.) and for storage in DOE's double-shell tanks.

c. The product shall not contain:

1) >5% of the total Cs-137 delivered to Contractor;

2) >5% of the total Tc-99 delivered to Contractor; and

3) >0.05 g/gallon and 200 g/transfer of Pu.

d. Hydroxide and nitrite composition shall comply with limits in Section 4.1, Corrosion Control, of WHC-SD-WM-EV-053, Rev. 1.

e. There shall be no potential for exothermic reaction.

f. A separate organic phase shall not exist.

g. The pipeline shall not plug during transport.

h. The elemental composition shall be provided for all elements constituting more than 0.5% by weight (dry basis) of the final contents and Contractor additives shall be reported in total.

i. Chemical additions during processing are limited to those identified in the DOE *Hanford Facility Dangerous Waste Part A Permit for Double-Shell Tanks*.

j. Material shall be critically safe and stable.

Specification 7: Low-Activity Waste Envelope Definitions

a. Envelope A

Feedstock in compliance with Envelope A is representative of the largest fraction of liquid waste to be treated and then incorporated into a low-activity waste (LAW) form. In contrast with the technical challenges of Envelopes B and C feedstocks, Envelope A feedstock provides an opportunity to demonstrate maximum throughput. Envelope A feedstock will NOT require:

1) removal of Cs-137 above a decontamination factor (Df) of $\leq$ 1000 (equivalent to a feedstock concentration $\leq$ 1.3 Ci/L);

2) removal of organically complexed TRU and Sr-90 (total organic content of the feedstock will be $\leq$ 9 g/L); or

3) product waste loading dependence on minor constituents. Waste loading will be limited by sodium only (assuming a silicate glass LAW product form).

Examples of wastes representative of that which may be provided as an Envelope A feedstock are generally classified as double-shell slurry feed (DSSF) and dilute non-complexed waste (DN).

b. Envelope B

Envelope B feedstock will contain high cesium levels which require a decontamination factor greater than 1000. Cesium concentrations in the waste may be as high as 2E11 Bq/L (5.3 Ci/L). In addition, constituents other than sodium may limit the product's waste loading. For example, SO_3/Na_2O may be as high as 0.2 by mass. In other respects, Envelope B corresponds to Envelope A. Examples of wastes representative of that which may be provided as an Envelope B feedstock are generally classified as Neutralized Current Acid Waste (NCAW) or aging waste, although some DSSF and DN wastes may meet Envelope B feedstock criteria.

c. Envelope C

Envelope C feedstock will contain organically complexed TRU and Sr-90. Removal of TRU and Sr-90 in the presence of organic complexing agents may be necessary to meet product specifications. The total organic content (TOC) will be higher than in Envelope A and B feedstocks (>10 g/L up to 40 g/L). The TRU and Sr-90 may be as high as 2.1E07 Bq/L (5.5E-04 Ci/L) and 3.3E09 Bq/L (8.7E-02 Ci/L), respectively. In other respects, Envelope C corresponds to Envelope A. Wastes which may be provided as an Envelope C feedstock are generally classified as concentrated complexant (CC).

Envelope A Definition

Chemical Analyte	Minimum, g/L	Maximum, g/L
Al	0	35
Ba	NE	0.1
Ca	NE	5
Cd	NE	0.1
Cl	0	9
Cr	0	2.5
F	0	12
Fe	NE	1
Hg	NE	0.02
K (note 1)	0	50
La	NE	0.08
Na (note 1)	69	160
Ni	NE	1
NO2	10	120
NO3	5	200
OH	4	70
Pb	NE	1
PO4	0	25
SO4	0	7
TIC	0	15
TOC (note 2)	0	<10
U	NE	2

Radionuclide	Minimum, Bq/L	Maximum, Bq/L
TRU	NE	3E+06
Cs-137	NE	3E+10
Sr-89/90	NE	4E+08
Tc-99	NE	5E+07

Physical Property	Minimum	Maximum
Density, g/mL	1.3	1.6
pH	12.5	13.5
vol% solids (note 3)	NE	5
wt%H20	60	80

Notes

Feedstock provided for this envelope will contain components within the range specified. Components listed in this table summarize the major constituents in the LAW plant feed. Components in addition to those defined in these tables may be present in the feedstock. All feed provided will meet Tank Farm Operations specifications given in WHC-SD-WM-OCD-015, April 24, 1995.

NE: value not estimated
NA: insufficient information to provide estimate

1. The sum of Na and K must be less than or equal to 7M.
2. Additional information regarding organic content is available in support materials
3. Vol% solids refers to insoluble solids fraction.

Envelope B Definition

Chemical Analyte	Minimum, g/L	Maximum, g/L
Al	0	35
Ba	NE	0.1
Ca	NE	5
Cd	NE	0.1
Cl (see note)	0	22
Cr (see note)	0	5
F (see note)	0	36
Fe	NE	1
Hg	NE	0.02
K (see note 1)	0	50
La	NE	0.08
Na (see note 1)	69	160
Ni	NE	1
NO2	10	120
NO3	5	200
OH	4	70
Pb	NE	1
PO4 (see note)	0	88
SO4 (see note)	0	26
TIC	0	15
TOC (see note 2)	0	<10
U	NE	2

Radionuclide	Minimum, Bq/L	Maximum, Bq/L
TRU	1E+03	3E+06
Cs-137	1E+09	3E+11
Sr-89/90	1E+06	4E+08
Tc-99	1E+06	5E+07

Physical Property	Minumum	Maximum
Density, g/mL	1.3	1.6
pH	12.5	13.5
vol% solids (note 3)	NE	5
wt%H20	60	80

Notes

Feedstock provided for this envelope will require a cesium Df of greater than or equal to 1000 (Cs concentration in feed will be greater than or equal to 4.88E10 Bq/L (1.3 Ci/L)) @ 7M Na and/or one (or more) silicate glass limiting constituents will be equal to or greater than those concentrations defined below. The limits provided are based on a 7M Na feed and a 20wt%Na20 silicate glass.

Maximum Feed Concentration @7M Na		Maximum Silicate Glass Solubility @ 20wt% Na20	
Cl	11g/L	Cl	1wt%
Cr	3.71 g/L	Cr203	0.5wt%
F	11 g/L	F	1wt%
P04	4.6 g/L	P205	3wt%
S04	6.6 g/L	S03	0.5wt%

Other components will be delivered within the specified ranges. Components listed in this table summarize the major constituents in the LLW plant feed. Components in addition to those defined in these tables may be present in the feedstock. All feed provided will meet Tank Farm Operations specifications given in WHC-SD-WM-OCD-015, latest revision.

NE: value not estimated
NA: insufficient information to provide estimate

1. The sum of Na and K must be less than or equal to 7M.
2. Additional information regarding organic content is available in support materials.
3. Vol% solids refers to insoluble solids fraction.

Envelope C Definition

Chemical Analyte	Minimum, g/L	Maximum, g/L
Al	0	35
Ba	NE	0.1
Ca	NE	5
Cd	NE	0.1
Cl	0	9
Cr	0	2.5
F	0	12
Fe	NE	1
Hg	NE	0.02
K (see note 1)	1	50
La	NE	0.08
Na	69	160
Ni	NE	1
NO2	10	120
NO3	5	200
OH	4	70
Pb	NE	1
PO4	0	25
SO4	0	7
TIC	0	15
TOC (see note 2)	=>10	40
U	NE	2

Radionuclide	Minimum, Bq/L	Maximum, Bq/L
TRU	1E+03	2E+07
Cs-137	1E+09	3E+10
Sr-89/90	1E+06	3E+09
Tc-99	1E+06	5E+07

Physical Property	Minumum	Maximum
Density, g/mL	1.3	1.6
pH	12.5	13.5
vol% solids (note 3)	NE	5
wt%H20	60	80

Notes

Feedstock provided for this envelope will contain components within the range specified. Components listed in this table summarize the major constituents in LAW plant feed. Components in addition to those defined in these tables may be present in the feedstock. All feed provided will meet Tank Farm Operations specifications given in WHC-SD-WM-OCD-015, April 24, 1995.

NE: value not estimated
NA: insufficient information to provide estimate

1. The sum of Na and K must be less than or equal to 7M.
2. Additional information regarding organic content is available in support materials.
3. Vol% solids refers to insoluble solids fraction.

Specification 8: High-Level Waste Envelope Definition

This Specification describes the contents of the high-level waste (HLW) envelope to be transferred to the HLW Contractor for processing. Tables S8-1A and S8-1B describe the estimated composition of major components of pretreated feeds. Table S8-2 describes the design basis maximum feed composition for radionuclide components. Table S8-3 describes the design basis range for selected physical properties of HLW feed delivered to the HLW Contractor. Feed will be delivered to the HLW Contractor by pipeline in batches.

Table S8-1A. Estimated Composition of Pretreated Feed(s)

Non-Volatile Element	g/L			Non-Volatile Element	g/L		
	Nominal	Minimum	Maximum		Nominal	Minimum	Maximum
Ag	0.045	NE	0.10	Ge	NE	NE	3.4 E-05
Al	1.51	1	3.3	Hg	NE	NE	Trace
Am	NE	NE	0.02	Ho	NE	NE	1.4 E-06
As	0.021	NE	0.05	I	NE	NE	1.4 E-06
B	0.019	NE	0.39	In	NE	NE	3.3 E-04
Ba	0.18	0.00	1.4	K	.181	NE	0.41
Be	0.017	NE	0.022	La	0.16	0.00	0.53
Bi	NE	0.00	0.86	Mg	0.248	NE	0.65
Ca	0.50	0.00	1.8	Mn	0.45	0.00	2
Cd	0.42	0.00	2.2	Mo	0.003	0.00	1.7
Ce	0.04	0.00	0.25	Na	5.70	3	6
Cr	0.08	0.04	0.25	Nb	NE	NE	0.003
Cs	NE	NE	0.18	Nd	0.11	0.00	0.53
Cu	0.018	NE	0.15	Ni	0.29	0.05	0.61
Dy	0.002	NE	2.7 E-05	Np	NE	NE	0.027
Er	NE	NE	8.4 E-07	P	0.05	0.01	0.19
Eu	NE	NE	0.005	Pb	0.109	NE	0.34
F	0.03	0.00	0.3	Pd	NE	NE	0.054
Fe	6.10	3.3	8.9	Pm	NE	NE	0.027
Gd	NE	NE	0.003	Pr	NE	NE	0.11

Table S8-1A. Estimated Composition of Pretreated Feed(s), *continued*

Non-Volatile Element	g/L			Non-Volatile Element	g/L		
	Nominal	Minimum	Maximum		Nominal	Minimum	Maximum
Pu	0.004	NE	0.016	Tb	NE	NE	6.2 E-05
Rb	NE	NE	0.048	Tc	NE	NE	0.079
Rh	0.016	NE	0.50	Te	0.036	NE	0.062
Ru	0.017	NE	0.17	Ti	0.01	0.00	0.74
S	0.06	0.00	0.10	Tl	NE	NE	0.083
Sb	0.04	NE	0.26	Tm	NE	NE	4.6 E-11
Se	0.049	NE	0.12	U	0.38	0.00	2.1
Si	2.48	0.26	5.1	V	0.001	NE	0.009
Sm	NE	NE	0.053	W	NE	NE	0.074
Sn	NE	NE	0.011	Y	NE	NE	0.049
Sr	0.018	NE	0.16	Zn	0.011	NE	0.13
Ta	NE	NE	0.008	Zr	0.98	0.02	2.8

Table S8-1B. Estimated Composition of Pretreated Feed(s)

Volatile Components	g/L		
	Nominal	Minimum	Maximum
Cl	0.01	0	0.1
CO_3	5.0	0.74	9.3
NO_2-	1.73	0	11.2 (total NO_2/NO_3)
NO_3-	0.11	0	
TOC	0.62	0	3.4
CN	NE	0	TBD
NH_3	NE	0	TBD

Notes:

1. Concentration values given in this table are based on an overall waste concentration of 31 g non-volatile oxides/L. Concentration values given in this table will vary in direct proportion to actual overall concentration of % non-volatile oxides.
2. Maximum value for the sum of non-volatile fission products and minor components (i.e., all non-volatile elements except (Al, Ba, Bi, Ce, Ca, Cd, Fe, La, Nd, Mn, Mo, Na, Ni, Si, Ti, U, Zr, Cr, Pd, Hr, Hu, P, S, F) is 5.0 wt% on oxide basis.
3. Maximum concentrations of individual fission products are shown in Table S8-2.
4. NE = Not Estimate; TOC = Total Organic Carbon; TBD = To Be Determined.

Table S8-2. Maximum Radionuclide Composition of Pretreated Feed

Isotope	Ci/L	Isotope	Ci/L	Isotope	Ci/L
^{3}H	2 E-05	^{113}Sn	1.88 E-06	^{147}Pm	2.96 E+00
^{14}C	1 E-06	^{115m}Cd	6.55 E-10	^{148m}Pm	9.85 E-10
^{55}Fe	1.05 E-02	^{119m}Sn	4.04 E-04	^{151}Sm	9.3 E-02
^{59}Ni	1.45 E-05	^{121m}Sn	9.0 E-06	^{152}Eu	2.04 E-04
^{60}Co	3.01 E-03	^{123}Sn	2.16 E-04	^{153}Gd	8.61 E-07
^{63}Ni	1.56 E-03	^{126}Sn	4.8 E-05	^{154}Eu	2.50 E-02
^{79}Se	4.2 E-07	^{124}Sb	2.61 E-09	^{155}Eu	3.06 E-02
^{89}Sr	4.86 E-06	^{126}Sb	4.83 E-06	^{160}Tb	8.24 E-09
^{90}Sr	6.3 E+00	^{126m}Sb	3.43 E-05	^{234}U	7.7 E-07
^{90}Y	6.3 E+00	^{125}Sb	1.31 E-01	^{235}U	3.2 E-08
^{91}Y	5.42 E-05	^{125m}Te	3.20 E-02	^{236}U	8.2 E-08
^{93m}Nb	8.7 E-05	^{127}Te	2.20 E-04	^{238}U	5.8 E-07
^{93}Zr	1.4 E-04	^{127m}Te	2.24 E-04	^{237}Np	2.3 E-05
^{95}Zr	2.06 E-04	^{129}Te	2.80 E-11	^{238}Pu	1.1 E-04
^{95}Nb	4.23 E-03	^{129m}Te	4.31 E-11	^{239}Pu	9.5 E-04
^{99}Tc	4.5 E-03	^{129}I	9.0 E-08	^{240}Pu	2.6 E-04
^{103}Ru	2.22 E-08	^{134}Cs	8.98 E-02	^{241}Pu	6.9 E-03
^{103m}Rh	2.01 E-08	^{135}Cs	2.0 E-04	^{242}Pu	7.1 E-08
^{106}Ru	3.72 E-01	^{137}Cs	3.80 E+00	^{241}Am	4.31 E-02
^{106}Rh	3.72 E-01	^{137m}Ba	3.59 E+00	^{242}Am	3.09 E-05
^{107}Pd	4.0 E-06	^{141}Ce	8.43 E-10	^{242m}Am	3.2 E-05
^{110m}Ag	1.19 E-04	^{144}Ce	2.22 E+00	^{243}Am	5.02 E-06
^{113m}Cd	1.09 E-03	^{144}Pr	2.22 E+00	^{242}Cm	3.72 E-05
^{113m}Ln	1.88 E-06	^{144m}Pr	2.67 E-02	^{244}Cm	9.33 E-04

Note: Radionuclide composition values given in this table are based on an overall waste concentration of 31 g non-volatile oxides/L. Maximum values vary in direct proportion to actual concentration of % non-volatile oxides.

Table S8-3. HLW Feed Design Basis Physical Properties

Property	Nominal	Design Range
Total solids (wt%)[a]	4.2	2.5-13
Total non-volatile oxides (g/L)	31	25-100
Slurry density (g/mL)	1.03	1.02-1.10
Settled solids (vol%)	12	7-25
Apparent viscosity (cP at 25°C)		
at 10 s^{-1} (50 rpm agitator)	50	6-94
at 25 s^{-1} (130 rpm agitator)	25	3-50
at 183 s^{-1}	25	1-50
Yield stress, (dyne/cm^2)	25	1-150
Settled solids shear strength 2 days settling (dyne/cm^2)	50	20-200
Heat capacity (cal/g-°C)	.88	0.79-0.97
pH	12	>10

a = Dried at approximately 100°C.

C.7 Interface Summaries

This Subsection consists of the following Interface Summaries:

IS 1: Water
IS 2: Electricity
IS 3: Secondary Waste--Solid
IS 4: Secondary Waste--Liquid
IS 5: Air Emissions
IS 6: Sanitary Waste
IS 7: Waste Feed Tanks
IS 8: Site Use and Return

Detailed *Interface Control Documents* (ICDs) are available in draft form for air emissions and waste feed tanks, as well as other products. Completed ICDs for all interfaces listed above will be included as part of the final Solicitation.

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Interface Summary 1: Water

Note: Historical information on reliability/availability will be provided in the final Solicitation.

a. Potable Water

Potable water will be made available to the Contractor according to the following:

1) A pressurized line and meter will be provided to the Contractor at the site boundary. 25 gallons per minute (gpm) per Contractor will be provided at no charge. Costs for additional service, if available, will be negotiable.

2) The potable water quality will meet WAC-246-290 with a typical analysis of the following:

- Dissolved Solids - 70 parts per million (ppm)
- Suspended Solids - less than (<) 10 ppm
- pH - 7.8
- Hardness - 66 ppm (expressed as $CaCO_3$)

b. Raw, Process, and Fire Suppression Water

Raw, process, and fire suppression water will be made available to the Contractor according to the following criteria:

1) A pressurized line and meter provided to the Contractor at the site boundary. 200 gpm per Contractor will be provided at no charge. Costs for additional service if available will be negotiated.

2) The typical analysis will be the following:

- Dissolved Solids - 100 ppm
- Suspended Solids - less than (<) 10 ppm
- pH - 7.9
- Hardness - 66 ppm (expressed as $CaCO_3$)

Interface Summary 2: Electricity

Note: Historical information on reliability/availability will be provided in the final Solicitation.

Electrical power will be made available to the Contractor according to the following criteria:

1) DOE will connect electrical power to a supplied transformer at the site boundary.

2) Electrical power will be supplied to a maximum of 13.8 kV, 20 MW, AC current at no charge. Additional electrical service is not available from DOE.

Interface Summary 3: Secondary Waste--Solid

The Contractor shall not co-mingle different waste types (non-dangerous with dangerous, TRU with LLW, etc.).

a. Secondary Radioactive Solid Waste

DOE will receive the following types of non-dangerous solid waste only: secondary radioactive solid waste, including LLW and TRU waste. The following criteria shall be met by DOE and the Contractor:

1) DOE will provide radioactive solid waste disposal services for waste generated by the Contractor. The Contractor shall transfer the secondary radioactive solid wastes to the DOE storage disposal site.

2) Maximum quantities of radioactive solid waste to be accepted by DOE will be established after the initial design phase of the facilities and incorporated into the Contract. Acceptance of radioactive solid waste in excess of the limits and the related cost for acceptance will be negotiated on a case-by-case basis. Incentives for quantities less than the maximum will be considered.

3) All radioactive solid waste transferred to DOE shall comply with the *Hanford Site Solid Waste Acceptance Criteria* (HSSWAC), WHC-EP-0063-4, dated April 1995. The Contractor shall have to become a "certified" vendor as described in the HSSWAC. Verification of meeting the Waste Acceptance Criteria for secondary radioactive solid waste will be required.

4) The Contractor shall submit to DOE all technical information and analyses required for modifications to any affected permits necessary to dispose of the secondary radioactive solid waste. Affected permits include, but are not limited to, the following: *Hanford Dangerous Waste Permit*, etc.

b. Radioactive Dangerous (Mixed) Waste

DOE will receive low-level and TRU secondary radioactive dangerous (mixed) waste (solid phase and incidental liquids). The following criteria shall be met by DOE and the Contractor:

1) DOE will provide a radioactive dangerous (mixed) solid waste disposal service for waste generated by the Contractor. The Contractor shall transfer the radioactive solid wastes to the DOE disposal site.

   Maximum quantities of radioactive dangerous (mixed) solid waste to be accepted by DOE will be established after the initial design phase of the facilities and incorporated into the Contract. Acceptance of radioactive dangerous (mixed) waste in excess of the established quantities and the related cost for acceptance will be negotiated on a case-by-case basis. Incentives for quantities less than the maximum will be considered.

2) All secondary radioactive solid waste transferred to DOE shall comply with the *Hanford Site Solid Waste Acceptance Criteria* (HSSWAC), WHC-EP-0063-4, dated April 1995. The Contractor shall become a "certified" Contractor as described in the HSSWAC. Verification of meeting the Waste Acceptance Criteria for secondary radioactive dangerous (mixed) solid waste will be required.

3) The Contractor shall submit to DOE all technical information and analyses required for modifications to any affected permits necessary to dispose of the secondary radioactive dangerous (mixed) solid waste. Affected permits include, but are not limited to, the following: *Hanford Dangerous Waste Permit,* etc.

c. High-Level Radioactive and High-Level Radioactive Dangerous (Mixed) Waste

DOE will evaluate Contractor requirements for transfer, interim storage, and ultimate disposal of non-standard high-level waste products. The Contractor shall provide the following information: quantity, composition, frequency of shipment, and technical information required to qualify waste for interim storage and disposal.

d. Non-Radioactive Dangerous Waste

DOE will not accept any non-radioactive dangerous waste. Any non-radioactive dangerous waste generated by the Contractor shall be managed and disposed of by the Contractor in accordance with applicable Federal, state, and local regulations.

e. Non-Radioactive Non-Dangerous Waste

DOE will not accept any non-radioactive non-dangerous waste. Any non-radioactive non-dangerous waste generated by the Contractor shall be managed and disposed of by the Contractor in accordance with applicable Federal, state, and local regulations.

Interface Summary 4: Secondary Waste--Liquid

The Contractor shall not co-mingle different waste types (non-dangerous with dangerous, TRU with LLW, etc.).

a. Secondary Radioactive, Radioactive Dangerous (Mixed), and Nonradioactive Dangerous Liquid Effluents

Secondary radioactive liquid effluents generated through the treatment of the Hanford tank wastes will be accepted by DOE at the site boundary. The following criteria shall be met by DOE and the Contractor:

1) DOE will provide a RCRA compliant pipeline to the boundary of the Contractor's site for transfer of the secondary radioactive liquid effluents to the 200 East Effluent Treatment Facility (ETF).

2) DOE will accept a maximum combined total of TBD m^3/yr of radioactive, mixed, and nonradioactive dangerous liquid effluents at a maximum flow rate of TBD m^3/min from the Contractor at no cost to the Contractor. Acceptance of additional quantities and the costs for accepting additional quantities will be negotiated on a case-by-case basis. Incentives for quantities less than the maximum will be considered.

3) All secondary radioactive, mixed, and nonradioactive dangerous liquid effluents transferred through the pipeline shall meet all of the *ETF Waste Acceptance Criteria*, WHC-SD-ETF-WAC-001, dated November 18, 1994. Verification of meeting the *ETF Waste Acceptance Criteria* will be required.

4) The Contractor shall submit to DOE all technical information and analyses required for modifications to any affected permits necessary to transfer secondary radioactive, mixed, and nonradioactive dangerous liquid effluents to the ETF. Affected permits include, but are not limited to, the following: *Hanford Dangerous Waste Permit*, WAC 173-216 Permit, *Title V Air Operating Permit*, etc.

b. Secondary Non-Radioactive Non-Dangerous Liquid Effluents

Secondary non-radioactive non-dangerous liquid effluents will be accepted by DOE at the site boundary. The following criteria shall be met by DOE and the Contractor:

1) DOE will provide a pipeline to the boundary of the Contractor's site for transfer of the non-radioactive non-dangerous liquid effluents to the 200 Area Treated Effluent Disposal Facility (TEDF).

2) DOE will accept a maximum of TBD m^3/yr of secondary non-radioactive non-dangerous liquid effluents at a maximum flow rate of TBD m^3/min from the Contractor at no cost to the Contractor. Acceptance of additional quantities and the costs for accepting additional quantities will be negotiated on a case-by-case basis. Incentives for quantities less than the maximum will be considered.

3) All non-radioactive non-dangerous liquid effluents transferred through the pipeline shall meet all of the *TEDF Interface Control Document Criteria*, WHC-SD-W049H-ICD-001, dated April 14, 1995. Verification of meeting the *TEDF Interface Control Document Criteria* will be required.

4) The Contractor shall submit to DOE all technical information and analyses required for modifications to any affected permits necessary to transfer secondary non-radioactive non-dangerous liquid effluents to the TEDF. Affected permits include but are not limited to the following: *Hanford Dangerous Waste Permit*, WAC 173-216 Permit, *Title V Air Operating Permit*, etc.

Interface Summary 5: Air Emissions

All air emission limits will be determined through compliance with applicable Federal, state, and local laws and regulations. The Contractor shall participate and be accountable for integrating air emission limits into the Hanford Site-wide air emissions compliance framework. The Contractor shall perform all air emissions analyses necessary for obtaining required permits to operate the facilities and shall supply all information necessary to meet reporting and/or other administrative requirements for compliance with applicable Federal, state, and local laws and regulations.

Actual hazardous air pollutant and criteria air emission limits will be based on the *best available control technology* (BACT) applied to the Contractor's technology by regulatory authorities. Actual radionuclides emission limits for the Contractor will based on the "best available radionuclides control technology" (BARCT) applied to the Contractor's technology by regulatory authorities.

Interface Summary 6: Sanitary Waste

DOE will not accept any sanitary waste. Any sanitary waste generated by the Contractor shall be managed and disposed of by the Contractor in accordance with applicable Federal, state, and local laws and regulations.

Interface Summary 7: Waste Feed Tanks

A Double-Shell Tank (DST) shall be provided to, utilized by, and returned to DOE by the Contractor according to the following:

1) An existing Double-Shell Tank (DST) and associated equipment (pumps, lines, etc.) will be provided to the Contractor. The tank will be either 241-AP-106 or 241-AP-108. After a controlled transition period, the Contractor shall provide and operate all tank monitoring and ventilation equipment.

2) The Contractor shall obtain the necessary regulatory permits to operate the staging tank and shall develop operating procedures in accordance with OSD-T-151-00007, WHC-SD-WM-SAR-016, and OSD-T-151-00010, and WHC-SD-WM-OSR-016, dated April 3, 1995.

3) The Contractor shall design, install, and operate a ventilation and heat removal system capable of removing a minimum of 1,000,000 BTU/hr of heat from the Contractor's feed tank (AP-106 or AP-108) in addition to any heat that may be added by Contractor-installed equipment in the tank.

4) The Contractor shall submit to DOE all technical information and analyses required for modifications to any affected permits necessary to transfer a waste feed tank to the Contractor or back to DOE. Affected permits include, but are not limited to, the following: *Hanford Dangerous Waste Permit,* applicable Clean Air Act Permits, etc.

5) The DST will be transferred to the Contractor, operated, and returned to DOE in accordance with negotiated protocols developed by the Contractor and approved by DOE. Contractor-proposed modifications to the DST shall be submitted to DOE for approval 60 days in advance of any proposed modification.

6) All equipment and modifications (pumps, transfer lines, etc.) required to operate the DST and transfer waste from the DST to the Contractor's facility shall be provided by the Contractor.

Interface Summary 8: Site Use and Return

Land for facility siting will be provided to the Contractor under a no-cost lease/land-use permit that authorizes the Contractor to utilize the property for construction, operation, decontamination, decommissioning, and RCRA closure. The Contractor shall be responsible for decontamination, decommissioning, and RCRA closure of the privatized facilities and shall return the site to DOE fully remediated to the pre-existing condition. Elements of site use and return include:

1) DOE will provide the Contractor a 10 acre site located on the east side of the 200 East Area. The site will be within approximately 1500 feet of the double-shell tank feed tanks designated by DOE.

2) DOE will provide the results of an independent, third-party site characterization report to establish a baseline for pre-existing conditions. DOE and the Contractor will formally agree on the baseline condition prior to use.

3) The Contractor shall return the site back to DOE upon completion of the Contract requirements with a certification that the site meets all regulatory and contractual requirements established for decontamination, decommissioning, and RCRA closure.

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C.8 Glossary

C.8.a. Definitions

A

Acceptance criteria: See **Waste acceptance criteria**.

Aging waste (Aging): High-level, first cycle solvent extraction waste from the Plutonium-Uranium Extraction (PUREX) plant (located in the Hanford Site's 200 East Area formerly used to separate plutonium from irradiated fuel and uranium).

Aluminum (Al): An element.

Annulus: Space between the inner and outer shells of double-shell tanks. Drain channels in the insulating and/or supporting concrete direct any leakage to the places where conductivity probes are installed. Conductivity probes and radiation detectors located in the annulus are the primary means of leak detection in double-shell tanks. The detectors activate alarms at a central monitoring station when a leak occurs.

Associate Contractor Agreement: An Associate Contractor Agreement (ACA) defines and formalizes the interfaces and relationships between the Hanford Site contractors and the TWRS Privatization Contractor(s) in the execution of this Contract. The responsibilities of the parties to each other in support of this Contract are defined in this multi-party agreement [Hanford Site contractor, and Hanford Site TWRS Privatization Contractor(s)].

B

Background radiation: The radiation always present in the environment that results from natural sources such as cosmic rays, the soil, building materials, and food (*see* radiation). In the U.S., the average person is exposed to 300 millirems of natural background radiation per year. In Washington State, the Department of Health has estimated that natural background radiation, including radon, ranges from approximately 175 millirems in the northwest part of the state to as high as 1635 millirems in the northeast part. In the vicinity of the Hanford Site, the natural background exposure is approximately 565 millirems per year.

Becquerel (Bq): The quantity of any radionuclide which undergoes one disintegration per second.

Boron (B): An element.

C

Calcium (Ca): An element.

Carbon (C): An element.

Cesium (Cs): An element.

Cesium-137 (Cs-137): A radioactive isotope of cesium, is one of the most important fission products, with a half-life of about 30 years. It is generated during fission of uranium-235.

Chlorine (Cl): An element.

Chromium (Cr): An element.

Cleanup: Remediation of an existing radioactive, dangerous, or mixed-waste site. The extent of the required effort depends upon the size of the area to be cleaned, the types and concentrations of the contamination, and the cleanup goals.

Close/Closure: Activity or process by which a dangerous waste treatment, storage, or disposal facility, which has discontinued operation, is closed in accordance with a RCRA closure plan approved by the Washington State Department of Ecology.

Code of Federal Regulations (CFR): Detailed rules established by the Federal Government first published in the Federal Register which are designed to implement, interpret, or prescribe law or policy.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A Federal law enacted in 1980 governing the cleanup of dangerous, toxic, and radioactive substances.

Concentrated Complexant (CC): Concentrated product from the evaporation of dilute complexed waste.

Constituents (of waste): Individual parts or components of the waste which define its character. These components vary in form (e.g., solid, liquid) and chemical makeup (e.g., sodium, nitrate, technetium, cesium, strontium).

Container: Mechanical structure which provides the confinement barrier during storage and retrieval periods and may act as the radiation shielding during handling of the waste products.

Contractor(s): The private company(ies) that will be competitively selected to enter into a contract with the Federal Government to construct and operate technologies/facilities of their choice, to receive and process tank wastes, and to deliver treated waste products to DOE for storage or disposal.

Criteria: A set of requirements used as standards.

Curie (Ci): The standard measure of radioactivity. The amount of radioactivity contained in 1.0 gram of radium, equal to 3.7×10^{10} disintegrations or nuclear transformations per second.

D

Dangerous Waste: Waste designated by Washington State as posing a substantial or potential hazard, when improperly managed, to human health or the environment in WAC 173-303-070.

Decontamination and Decommissioning (D&D): Decontamination is the removal of radioactive or dangerous material from surfaces, structures, or equipment by activities such as scraping, sand blasting, chemical action, or washing. Once decontamination has been completed, decommissioning is the process of demolishing or taking a facility out of use or renovating it for reuse.

Defense waste: Radioactive waste resulting from weapons research, manufacture of nuclear weapons reprocessing of defense-spent fuel, or the operation and decommissioning of nuclear-powered ships and submarines.

Dilute complexed waste: Waste that is characterized by a high content of organic carbon including organic complexants.

Disposal: To store waste to ensure isolation from the biosphere for the foreseeable future, with no intent of retrieval, requiring deliberate action to regain access to the waste.

Dose: The quantity of energy or radiation absorbed by a person or other living organism for a specified period of time. The unit of absorbed dose is the rad.

Double-shell slurry: Concentrated wastes in the double-shell tanks that result from evaporation of liquids in the double-shell tank wastes and the liquids that are pumped from the single-shell tanks.

Double-shell slurry feed (DSSF): Non-organic, evaporator concentrate that is high in sodium aluminate.

Double-shell tank (DST): A reinforced concrete underground vessel with two inner steel liners to provide primary containment and backup containment of liquid wastes.

E

Environment: The land, water, and atmosphere of a specific area or the circumstances or conditions in which a system such as TWRS exists and functions.

Evaluation tests: Specific tests required of Part B contractors to address tank waste uncertainties and to demonstrate their production capacity and process technology or method.

Extraordinary nuclear occurrence: A condition determined by the Department of Energy if two criteria are met: 1) 840.4 Criterion I - substantial discharge of radioactive material or substantial radiation levels off-site, and 2) 840.5 Criterion II - substantial damage to persons off-site or property off-site (reference 10 CFR 840).

F - G

Fissile: An atom capable of being split by a low-energy neutron. The most common fissile materials are uranium 235 and plutonium 239.

Fission (or Fissioning): The dividing or splitting apart of a heavy atom, such as uranium, which releases large amounts of energy.

Fission products: A complex mixture of new atoms (nuclides) produced as a result of nuclear fission. Fission products are usually radioactive. In the tank waste, the predominant fission products include cesium, strontium, and technetium.

H

Half-life: The time required for the number of radioactive nuclei of a given kind to decay to half its initial value.

Hanford Site: A 570-square-mile reservation in southeast Washington State owned by the Federal Government. The Hanford Site, established in 1943 as part of the Manhattan Project, had the chief mission of producing plutonium for use in nuclear weapons for the nation's defense. Hanford had nine production reactors and four chemical separation plants. The site's current mission is environmental cleanup and developing related technologies.

High-level waste (HLW): See **Waste, High-Level**.

Hydrogen (H): An element.

I - J

Imminent danger: A condition or hazard, which could reasonably be expected to cause death or serious harm to facility workers or the public immediately or before such conditions or hazard can be eliminated through normal procedures.

Interim storage: The temporary accumulation of radioactive waste or product between treatment processes.

Iodine (I): An element.

Iodine-129 (I-129): A radioactive isotope of Iodine.

K - L

Low-activity waste (LAW): See **Waste, Low-Activity**.

Low-level waste (LLW): See **Waste, Low-Level.**

M

Millirem: A unit measuring the effect of a dose of radiation on human tissue. One-thousandth of a rem. The average American receives approximately 360 millirems per year from natural sources and medical and dental X-rays, which constitutes about 97% of total background radiation.

Mitigation: Actions taken to reduce the potential impacts or severity of an activity or a situation.

Mixed waste: See **Waste, mixed**.

Monitoring: Continuous surveillance and inspection of activities or sites.

N

National Environmental Policy Act (NEPA): A Federal law requiring the Federal Government to consider the environmental impacts of, and alternatives to, proposed major actions.

Neptunium (Np): An element.

Neutralization: The treatment of Hanford acidic waste with an alkali (such as sodium hydroxide or potassium hydroxide).

Neutralized Current Acid Waste (NCAW): See **Aging Waste.**

O

Offeror: Prospective contractors who submit bids, proposals, or quotations.

Oxygen (O): An element.

P

Permit: Any permit, license, and other such approval from regulatory agencies.

Permit application: Any permit application, license application, notice of construction, and other such application, notification, or other such communication with regulatory agencies.

Phosphorus (P): An element.

Plutonium (Pu): An element.

Privatized facilities: Facilities which are privately developed, financed, constructed, owned, operated, decontaminated, decommissioned, and closed under the requirements of the Resource Conservation and Recovery Act.

Process Waste: Excess materials resulting from chemical or physical processes.

Products: The deliverables to DOE from tank waste privatization contractors, which may include solid (e.g., vitrified) low-activity waste, ready for storage or disposal; separated fission products (cesium, strontium, and technetium), entrained solids, and solid (vitrified) high-level waste ready for storage or disposal.

Q

Quality Assurance (QA): One of an organization's management systems that ensures all relevant information, data, and results for a specific activity are compiled in a planned and controlled manner; that there is a written, signed record to that effect; and that activities and documentation are in compliance with regulatory requirements. QA also refers to the various functions in Government contracting which are performed by the Government to determine whether a contractor has fulfilled its contract obligations pertaining to quality.

R

Radiation: Energy, in the form of atomic particles (alpha, beta, and neutron) and electromagnetic waves (gamma rays), given off by radioactive atoms during the process called radioactive decay.

Radioactive waste: See **Waste, radioactive.**

Radioactivity: The spontaneous emission of radiation from the nucleus of an unstable isotope, generally consisting of alpha or beta particles and often accompanied by gamma rays. The standard unit of measure of radioactivity is the curie.

Rem: An acronym for roentgen equivalent man. A unit of measurement of energy imparted by radiation to biological systems and used to measure the amount of radiation exposure a person receives.

Remediation (remedial action): Action taken to counteract or remedy an undesirable event. Examples of hazardous and radioactive waste remedial action include pumping, filtration, evaporation of liquids, separation, or removal.

Resource Conservation and Recovery Act (RCRA): A Federal law which governs the treatment, storage, and disposal of solid and hazardous waste.

Restoration: To return to an original condition.

Risk: The product of the consequences of an event and the probability that it may occur.

S

Saltcake: A type of tank waste consisting of water-soluble crystals of processed chemicals containing fission products found in high-level waste tanks, resulting from the evaporation of dilute, neutralized waste.

Secondary waste: Waste generated from contact with high-level waste or low-activity waste, e.g., liquid effluents, failed equipment, clothing, tools, facilities, tanks. This waste would either be recycled, i.e., returned to the high-level waste or low-activity waste streams, or disposed of as low-activity waste.

Selenium (Se): An element.

Shielding: Materials (such as concrete, water, or lead) placed around a radioactive substance to reduce the level of radiation and subsequent exposure of personnel.

Silicon (Si): An element.

Sludge: A mixture of insoluble materials that usually settles to the bottom of waste tanks. Sludge contains metal oxides and hydroxides mixed with other dense, settled tank solids. Sludges at the Hanford Site consist of aluminum, silicon, iron oxides, and the hydroxides of heavy metals such as uranium.

Slurry: A mixture of liquid and solids (e.g., sludge) in suspension.

Sodium (Na): An element.

Solicitation: A document, made available to prospective contractors by a Government agency, requesting the submission of offers or of information; the process of issuing such documents and obtaining responses.

Specifications: The physical, chemical and performance characteristics established by DOE for products to be delivered by the Privatization Contractor.

State: State of Washington.

Strontium (Sr): An element.

Strontium-90 (Sr-90): A radioactive isotope of Strontium.

Supernate, Supernatant Liquid: A free liquid layer above the settled solids in a waste tank, containing dissolved process chemicals and fission products.

Surveillance: Monitoring or observing to verify whether a process or material conforms to specified requirements.

T

Tank waste: Waste currently contained in single-shell tanks, double-shell tanks, all new waste added to double-shell tanks, and cesium and strontium stored in capsules.

Tank Waste Remediation System (TWRS): An integrated program established in December 1991 to store, treat, immobilize, and dispose (or prepare for disposal) of Hanford radioactive tank waste.

Technetium (Tc): An element.

Technetium-99 (Tc-99): A beta emitting radioisotope with a half-life of 212,000 years.

Transuranic (TRU) elements: Those elements having an atomic number greater than that of uranium (92).

Transuranic (TRU) waste: See **Waste, Transuranic**.

Treatment: Any method, technique, or process designed to change the physical, chemical, or biological characteristics or composition of waste with the purpose of making it safer to store, transport, or dispose of; facilitating its recovery or reuse; or reducing its volume or hazard.

Tri-Party Agreement (TPA): The Hanford Federal Facility Agreement and Consent Order (HFFACO), signed in 1989 and amended in 1994 by the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy. The HFFACO, which is legally enforceable, defines the responsibilities, management, regulatory focus, and schedule for the environmental cleanup of the Hanford Site.

U

Uranium (U): An element.

V

Vitrification: A process to permanently immobilize radioactive or dangerous waste as a glass solid.

W - Z

Waste: Any by-product or excess material. Types of waste include:

Waste, Dangerous: Wastes designated as dangerous by the Washington State Department of Ecology in WAC 173-303-070.

Waste, Hazardous: Wastes designated as chemically or biologically hazardous by the U.S. Environmental Protection Agency in 40 CFR 261 or as dangerous waste by the Washington State Department of Ecology in WAC 173-303-070.

Waste, High-Level (HLW): Those aqueous wastes resulting from the operation of the first cycle solvent extraction system or equivalent, and the concentrated waste from subsequent extraction cycles or equivalent, in a facility for reprocessing irradiated reactor fuels.

Waste, Low-Activity (LAW): The residual product of separation processes from HLW, from which the largest technically and economically practicable amount of apportioned total site activity attributable to high-level waste has been isolated for disposal in a deep geological repository, and which, when solidified, is at a lower than the NRC Class C low-level waste radioisotope concentration limits.

Waste, Low-Level (LLW): Waste that contains radioactivity and is not classified as high-level radioactive waste, spent nuclear fuel, or by-product material (as defined in section IIc(2) of the Atomic Energy Act of 1954, {42 USC 2014(e)(2)}. This includes the fraction of the Hanford tank waste remaining after separating out, to the extent technically possible, insoluble high-level waste solids, Cs-137, Tc-99, Sr-90, and TRU. The LLW fraction reside in the tanks in the form of a high-sodium content, alkaline supernatant (mostly in double-shell tanks), or as a saltcake produced by removing the water from the supernatant (mostly in single-shell tanks). The feed to the LLW plant will be a supernatant requiring the radionuclide separations listed above.

Waste, Mixed: Waste with both radioactive and dangerous components.

Waste, Radioactive: A material that no longer has an identified use, that contains radioactive elements.

Waste, Transuranic (TRU): Non-high-level radioactive waste which is contaminated with alpha emitting radionuclides with an atomic number greater than 92 at a concentration of greater than 100 nCi/g (nanocuries/gram).

Waste acceptance criteria: The set of requirements established by DOE that must be met by waste products delivered by the Contractor before they will be accepted for storage by DOE.

Waste Form: The processed radioactive waste immobilized in glass or another substance that meets specified requirements. For low-activity waste, glass or an alternate material may be used. For high-level waste, only glass is acceptable.

Waste Feed Staging Tank: The tank into which waste will be transferred for subsequent retrieval and treatment by the Privatization Contractors. Each Contractor would be provided one feed tank (a double-shell tank) to receive waste provided by DOE.

Waste product: The waste product consists of the waste form or material (e.g., dry cesium) packaged in a sealed container for disposal. Inert filler or matrix material may be added to reduce void space.

Waste product streams: In the TWRS Privatization Program, waste product streams would include solidified low-activity waste, separated fission products, and treated high-level waste solids.

C.8.b. Symbols

Bq	Becquerel
Btu	British thermal unit
C	Celsius
Ci/m^3	Curies per cubic meter
Ci/g	Curies per gram
cm^2	Square centimeters
cP	Centipoise
dpm	Disintegrations per minute
Df	Decontamination factor
F	Fahrenheit
ft/sec	Feet per second
g	Gram
gpm	Gallons per minute
k_{eff}	Criticality safety factor
kg	Kilogram
kV	Kilovolts
kW	Kilowatt
L	Liter
m	Meter
mrem/hr	Millirems per hour
MW	Megawatts
nCi	Nanocurie
Pa	Pascal
ppm	Parts per million
Psi	Pounds per square inch
rem/hr	Rem per hour
R/hr	Rad per hour
rpm	Revolutions per minute
s	Second
W	Watt
wt%	Percent by weight

C.8.c. Acronyms

ACA	Associate Contractor Agreement
ALARA	As low as reasonably achievable
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BACT	Best available control technology

BARCT	Best available radionuclides control technology
CAA	Clean Air Act
CC	Concentrated Complexant
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DN	Dilute non-complexed waste
DOE	U.S. Department of Energy
DOE/RL	DOE Richland Operations Office
DOH	U.S. Department of Health
DSSF	Double-shell slurry feed
DST	Double-shell tank
EA	Environmental assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
GAO	General Accounting Office
FOCI	Foreign Ownership Control or Influence
HFFACO	Hanford Federal Facility Agreement and Consent Order (also known as the Tri-Party Agreement)
HLW	High-level waste
IAEA	International Atomic Energy Agency
IAW	In accordance with
ICD	Interface Control Document
ILAW	Immobilized Low-activity waste
IPT	Integrated Product Team
LAW	Low-activity waste
LLW	Low-level waste
NCAW	Neutralized current acid waste
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OCRWM	Office of Civilian Radioactive Waste Management
OSHA	Occupational Safety and Health Administration
PCT	Product Consistency Test
QA	Quality Assurance
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
SARA	Superfund Amendments and Reauthorization Act
SOW	Statement of Work
SST	Single-shell tank
TBD	To be determined
TIC	Total Inorganic Carbon

TOC	Total Organic Carbon
TPA	Tri-Party Agreement
TRU	Transuranic
TWRS	Tank Waste Remediation System
VOC	Volatile Organic Compounds
WAC	Washington Administrative Code
WDOH	Washington Department of Health
WHC	Westinghouse Hanford Company

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SECTION D

Packaging & Marking

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Section D Packaging and Marking

Packaging and marking of deliverable products called for under this Contract shall be in compliance with the applicable provisions and requirements of this Contract.

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SECTION E

Inspection & Acceptance

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Section E Inspection and Acceptance

Inspection and acceptance of the deliverables and services required by this Contract will be performed by the Contracting Officer or individuals designated in writing by the Contracting Officer.

For Part A service and deliverables, acceptance will occur when all of the deliverables required for Part A have been determined by the Contracting Officer to have been provided in accordance with the terms of the Contract.

For Part B services, interim acceptance will be performed when the product(s)* are transferred to DOE. If it is subsequently determined that any of the waste processing services, including accounting for all of the waste feed material and providing all of the required products or process waste, have not been performed as required by the Contract, interim payments made by DOE based on this interim acceptance, will be refunded to DOE. Final acceptance will be performed when all processing services, in accordance with the terms of the Contract, are completed, decontamination and decommissioning and Resource Conservation and Recovery Act closure are completed, and the site has been returned to DOE.

*vitrified high-level waste and immobilized low-activity waste

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SECTION F

Deliveries or Performance

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Section F Deliveries or Performance

The period of performance for this Contract shall extend until June 1, 2013.

The following schedule shall apply to Part A:

CLIN or Activity	From	To
001	Date of Contract Award	December 29, 1997
002 (Option)	Date of Contract Award	December 29, 1997
Evaluate, Select, Complete Negotiations for Part B	December 29, 1997	April 30, 1998

Although the primary purpose of this Contract is to provide waste processing services, performance of Part B will require a number of activities, including: completing final design, obtaining required permitting, constructing the processing facility, processing waste, and completing decontamination and decommissioning/RCRA Closure. The following schedule shall apply to Part B:

CLIN or Activity	From	To
Obtain Permit/ Complete Design	Date of authorization to proceed with Part B work	December 31, 1999
Construction/Testing	December 31, 1999	June 1, 2002
003A, B & C	June 1, 2002	June 1, 2007
004A, B & C	Completion of Minimum Quantities	June 1, 2011
005A (Option)	June 1, 2002	June 1, 2007
005B (Option)	Completion of Minimum Quantity	June 1, 2011
D&D/RCRA Closure	June 1, 2011	June 1, 2013

The schedule for Part B is a maximum schedule. As specified in Section H, Clause H.5, D&D/RCRA Closure may commence at any time after all of the minimum quantities have been processed and DOE has provided notice that no additional batches of waste will be provided. Decontamination and decommissioning/RCRA Closure shall be completed not more than two years after the Contractor's receipt of the notice.

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SECTION G

Contract Administration Data

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Section G Contract Administration Data

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G.7 Representations and Certifications 3

G.8 Delivery Destination for Contract Deliverables 3

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Section G Contract Administration Data

G.1 Correspondence Procedures

To promote timely and effective administration, correspondence submitted under this Contract shall include the Contract number and shall be subject to the following procedures:

a. Technical Correspondence. Technical correspondence (as used herein, excludes technical correspondence where patent or technical data issues are involved and correspondence which proposes or otherwise involves waivers, deviations, or modifications to the requirements, terms, or conditions of this Contract) shall be addressed to the U.S. Department of Energy (DOE) Contracting Officer's Representative (COR), with an information copy addressed to the DOE Contracting Officer.

b. Other Correspondence. All other correspondence shall be addressed to the DOE Contracting Officer with information copies of the correspondence to the COR and the DOE Patent Counsel (where patent or technical data issues are involved).

G.2 Contract Administration

The DOE Contracting Officer (CO) is:

U. S. Department of Energy
Richland Operations Office
Procurement Services Division, MSIN A7-80
*Team Leader, Contract Management Team
P.O. Box 550 or 825 Jadwin Avenue
Richland, WA 99352

*Name to be provided in the final Solicitation.

G.3 Billing Instructions

a. The Contractor shall submit the original and three copies of invoices or vouchers in accordance with the payments provision of this Contract to the following address:

U. S. Department of Energy
Richland Operations Office
Procurement Services Division, MSIN A7-80
Team Leader, Contract Management Team
P.O. Box 550 or 825 Jadwin Avenue
Richland, WA 99352

b. The Contractor shall submit invoices in accordance with the Billing Instructions, which will be provided at time of award of a Contract, and other applicable clauses of this document.

G.4 DOE Property Administration

For purposes of administration of DOE property the point of contact is:

U. S. Department of Energy
Richland Operations Office
Organizational Property Management Officer
Site Infrastructure Division MSIN G3-18
P.O. Box 550 or 2261 Stevens Blvd.
Richland, WA 99352

G.5 Contract Authority

a. No order, statement, or conduct of DOE personnel who visit the Contractor's facilities or in any other manner communicates with Contractor personnel during the performance of this Contract shall constitute a change under the *Changes* clause of this Contract.

b. The Contractor shall not comply with any order, direction or request of DOE personnel unless it is issued in writing and signed by the CO or designated representative pursuant to specific authority otherwise included as a part of this Contract.

c. The Contractor shall not represent DOE in any communications or contact with stakeholders, regulators, or any third party unless written approval has been obtained from DOE. This limitation does not restrict the Contractor from working with the regulators and stakeholders to negotiate permits or discuss issues associated with the Contractor's work.

d. The Contractor shall notify the CO orally within twenty-four hours, and if requested by the CO, in writing within five calendar days, from the date the Contractor receives from any person other than a CO any written or oral communication which can reasonably be construed as:

1) authorizing a change or waiver of any Contract provision or requirement;

2) providing an interpretation of any Contract provision or requirement;

3) constituting a recommendation, advice or direction.

e. On the basis of the most accurate information available to the Contractor, the oral and written notice specified in G.5.d. above, shall:

1) state the name and, if known, the employer and function of the person making the communication;

2) identify any documents and state the substance of any oral communication involved;

3) state the name and title of the Contracting official or employee involved in or knowledgeable of the matter; and

4) provide any other information available such as dates, circumstances, and reasons for the communication.

G.6 Modification Authority

As stated above and not withstanding any of the other provisions of this Contract, a CO shall be the only individual on behalf of DOE authorized to:

a. accept non-conforming work;

b. waive any requirement of this Contract; or

c. modify any term or condition of this Contract.

G.7 Representations and Certifications

Representations, Certifications, and Other Statements of Offerors completed as Section K of the Solicitation leading to the award of this Contract, dated_____ are hereby incorporated into this Contract by reference.

G.8 Delivery Destination for Contract Deliverables

In accordance with the deliverables described in Section C, paragraphs C.4.1 and C.4.2, the following delivery points apply:

a. Contracting Officer (CO)

U. S. Department of Energy
Richland Operations Office
Procurement Services Division, MSIN A7-80
*Team Leader, Contract Management Team
P.O. Box 550 or 825 Jadwin Avenue
Richland, WA 99352

*Name to be provided in the final Solicitation.

b. Hanford Site Contractor (H)

U. S. Department of Energy
Richland Operations Office
Division Director, Retrieval, Treatment, Immobilization (RTI)
P.O. Box 550 or 825 Jadwin Avenue
Richland, WA 99352

c. Regulator (R)

Regulator as stated.

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SECTION H

Special Contract Requirements

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Section H Special Contract Requirements

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Section H Special Contract Requirements

H.1 Description of Contract

This is a two-part Contract to acquire Hanford tank waste treatment and immobilization services at demonstration scale and on a privatized basis. The Contractor has been selected as having the requisite technical, business, and financial capability to perform both parts. Part A is a fixed term, firm-fixed price effort to establish the technical, operational, regulatory, and financial elements required to provide fixed unit-priced waste treatment and immobilization services on a privatized basis. Based upon the Contractor's performance of Part A work, and review of Part A deliverables, the Contracting Officer will determine whether to authorize the Contractor to proceed to perform Part B. In Part B, the Contractor would, on a demonstration scale and at fixed unit prices, treat and immobilize certain Hanford tank waste utilizing facilities that are — developed, financed, permitted, constructed, owned, operated, decontaminated, decommissioned, and Resource Conservation and Recovery Act (RCRA) closed — by the Contractor.

H.2 Obligation of Funds

a. The amount of funds obligated to this Contract is $_____. Such funds may be unilaterally increased by DOE or by written agreement of the parties. Obligated amounts may only be decreased by written agreement of the parties.

b. DOE's obligation for performance of this Contract is contingent upon the availability of appropriated funds from which payment for Contract purposes can be made. No legal liability on the part of DOE for any payment, termination liability, or other contractual requirement may arise for performance under this Contract until funds are made available and obligated to this Contract.

c. DOE will make its best effort to obligate funds to the Contract after Congressional authorization and the allotment is received by the Richland Operations Office. DOE intends to obligate sufficient funds to meet or exceed any annual termination liability (*see* Clause H.21) and performance payment requirements.

d. The Contractor will notify the Contracting Officer in writing whenever it has reason to believe that the payments due from DOE under this Contract in the next 60 days, when added to all payments previously made, will in the event of termination for convenience, or otherwise, result in an amount anticipated by the Contractor to be due from DOE which exceeds the amount obligated by DOE as specified in Clause H.2.a. Such notice shall, as a minimum, identify (i) the payments made to date, (ii) expected payments to the point of exceeding amounts obligated, and (iii) estimated payments for the remaining portion of DOE's fiscal year. Upon receipt of such notice, DOE will within 15 calendar days respond to the Contractor with a plan of action to address funding requirements.

H.3 Authorization to Proceed with Part B Work

a. At the conclusion of the period of performance specified in Section F, CLIN 001 and CLIN 002 (Option), or sooner as determined by the Contracting Officer, DOE will review the deliverables specified in Section C, paragraph C.4.1 and, based upon such review, determine whether to authorize the Contractor to proceed to perform all or a portion of the Part B work specified in Section C, paragraph C.4.2.

b. If DOE determines to authorize the Contractor to proceed with the performance of said Part B work, the Contractor shall immediately commence such performance and diligently prosecute said work in accordance with this Contract; it being understood, however, that except as to the fixed unit prices required in Standard 5 of Subsection C.5, the parties may negotiate changes in or additions to the Contract terms and conditions necessitated by previously unknown aspects of the project financing arrangements.

c. The failure of DOE to authorize the Contractor to proceed to perform Part B work shall not be deemed a termination for the convenience of DOE, and the Contractor's only entitlement shall be to receive payment of the Contract price upon delivery and acceptance of all Contract Part A requirements. If DOE has not authorized the Contractor to perform Part B work by April 30, 1998, the Contract will be deemed to have been completed on that date.

H.4 Other Government Contractors

a. DOE has existing contracts and may award other contracts for work or services on the Hanford Site. It is recognized that the Contractor's performance will require day to day cooperation with other contractors. The Associate Contractor Agreement (ACA) (*see* Glossary) defines and formalizes the interfaces and relationships among various contractors performing work for DOE on the Hanford Site. The Contractor shall negotiate and sign ACA's with other Hanford Site contractors with which it has an interface.

b. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other such contractor.

H.5 Ordering and Contract Order Quantities

a. The minimum and maximum order quantities for Waste Envelope A are as follows:

1) DOE will order the processing of waste containing at least 2,600 metric tons of sodium (Na) under this Contract.

2) DOE may order the processing of waste containing up to 6,500 metric tons of Na under this Contract.

b. The minimum and maximum order quantities for Waste Envelope B are as follows:

1) DOE will order the processing of waste containing at least 100 metric tons of Na under this Contract.

2) DOE may order the processing of waste containing up to 1000 metric tons of Na under this Contract.

c. The minimum and maximum order quantities for Waste Envelope C are as follows:

1) DOE will order the processing of waste containing at least 100 metric tons of Na under this Contract.

2) DOE may order the processing of waste containing up to 3,700 metric tons of Na under this Contract.

d. The Contractor shall notify the Contracting Officer in writing no earlier than 90 days and no later than 30 days prior to the date the Contractor will be ready to receive a new batch of waste feed. Batches will be transferred to the Contractor's receiving tank no earlier than 30 days and no later than 90 days after receipt of the Contractor's notice. The Contractor is obligated to promptly inform the Contracting Officer as to any change to the date the Contractor is actually ready to receive new waste feed.

e. Orders for waste processing up to the Contract minimum order quantity for each waste envelope shall be processed in accordance with the following schedule:

1) <u>Waste Envelope A</u>

(a) DOE will deliver for processing, waste containing 600 metric tons of Na (within a tolerance of -5 percent/+ 10 percent) of Waste Envelope A at the date of hot start-up.

(b) As practicable, it is DOE's intention to transfer batches in an amount so as to fill the Contractor's holding tank; however, additional batch transfers will be in quantities containing no less than 90 metric tons of Na up to the minimum order quantity.

2) <u>Waste Envelope B</u>

(a) DOE will deliver for processing a batch of Waste Envelope B containing at least 100 metric tons of Na no earlier than 30 days and not later than 90 days after the completion of the processing of the waste batch as specified in Clause H.5.e.1.a.

(b) Additional batch transfers will be in waste quantities containing no less than 90 metric tons of Na.

3) Waste Envelope C

(a) DOE will deliver for processing a batch of Waste Envelope C containing at least 100 metric tons of Na.

(b) Additional batch transfers will be in waste quantities containing no less than 90 metric tons of Na.

4) Waste Envelope D (Option)

TBD

f. All services to be furnished under this Contract in excess of the minimum order quantity shall be ordered by issuance of written order by the Contracting Officer. The written order shall specify at a minimum, the type and quantity of waste feed to be processed, as well as the expected dates of delivery. However, DOE shall be obligated to provide at least the minimum batch quantity of either Waste Envelope A, Waste Envelope B, or Waste Envelope C, and if part of this Contract, Waste Envelope D, not earlier than 30 days and not later than 90 days after receipt of the Contractor's notice specified in Clause H.5.d.

g. All orders for waste processing are subject to the terms and conditions of the Contract. In the event of conflict between an order and this Contract, the Contract shall control.

h. If mailed, an order is considered "issued" when DOE deposits the order in the mail.

i. In the event that minimum quantities have been processed and the Contractor has notified the Contracting Officer in a timely manner that its facilities are ready to receive additional waste in accordance with provisions of Clause H.5.d, and a period of 90 days has passed without receipt of additional waste, the Contracting Officer may provide notice to the Contractor that no additional batches will be forwarded for processing and the Contractor should begin decontamination and decommissioning activities.

However, if the Contracting Officer advises the Contractor that further waste batches will be forthcoming at an estimated time in the future, the Contractor, may if such action or inaction by DOE has a materially adverse effect on the Contractor, assert a claim for an equitable adjustment under FAR 52.233-1 of the Contract. Such rights under this Clause apply only when the Contractor has idle facilities due solely to the actions or inactions of DOE and the facility is otherwise capable of processing waste in accordance with this Contract.

j. Nothing contained herein shall be construed in any way to provide relief to the Contractor for idle facilities due to:

1) any facility problem which creates a situation which violates any Federal, state, or local laws or regulations;

2) any cause related directly or indirectly to compliance with the radiological health and safety requirements of this Contract; or

3) causes which are due in whole or in part to the fault of the Contractor or its subcontractors.

H.6 Availability of Utilities and Services

DOE will furnish the property, utilities, and services as set forth as DOE-furnished in Section C. Any property, utilities, and services not specifically set forth as being furnished by DOE or in quantities in excess of those expressed are the responsibility of the Contractor and shall be obtained at the Contractor's sole expense.

H.7 Contractor Property

a. Unless identified in the Contract as DOE-furnished, the Contractor shall provide all materials and supplies necessary to perform the work as specified in the Contract. All such materials and supplies must be compatible and operate safely with existing systems equipment. For Contractor vehicles, see Section J.

b. The Contractor shall retain title to the facility and all equipment installed by the Contractor during the Contract term. At the expiration of the Contract term or in the event of Contract termination, all rights to, title to, and interest in all improvements and equipment constructed or installed on the premises and additions, shall remain with the Contractor unless DOE exercises the ownership rights as specified in Clause H.21. In the event DOE exercises its rights under Clause H.21, the Contractor shall surrender possession of said premises and the improvements and equipment to DOE in good repair and condition, reasonable wear and tear excepted.

H.8 Environmental Permits and Applications

The Contractor shall be responsible for obtaining in its own name and shall solely be responsible for compliance with all permits, authorizations and approvals from Federal, state, and local regulatory agencies which are necessary for the performance of the work required under this Contract. Copies of all applications and notifications to regulatory agencies shall be provided to DOE as such documents are provided to regulatory agencies.

Notwithstanding the above, for purposes of the compliance with the hazardous waste provisions of the Resource Conservation and Recovery Act (RCRA) as amended, and the State of Washington Hazardous Waste Management Act of 1976 as amended (Chapter 70.105A RCW), and implementing

regulations, the Contractor may be authorized to proceed with construction and operation of the required facilities under DOE's permit for hazardous and dangerous waste activities at the Hanford Site.

DOE may be required to sign the hazardous (or dangerous) waste permit application {and depending upon the outcome of review by regulatory agencies, other permit applications such as air operating permit materials} as co-owner due to DOE's ownership of the land upon which the facility will be located. DOE shall have no obligations with regard to construction, operation, or closure or postclosure of Contractor's facility (except as may be specifically provided for elsewhere in the Contract). The Contractor shall provide to DOE for review and comment, any hazardous or dangerous waste permit applications or other regulatory materials or permits which are required to be signed by DOE as co-owner. These materials shall be provided to DOE initially not later than 90 days prior to the date they are to be submitted to the regulatory agency. DOE will provide comments to the Contractor within 30 days after receipt of the document. The final regulatory documents shall be provided to DOE at least thirty days prior to the date of submittal to the regulatory agencies. The Contractor shall provide a certification statement attesting to DOE, that the information DOE is being requested to sign has been prepared in accordance with applicable requirements, by including the following certification statement in the submittal of such materials to DOE:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge violations."

The certification statement to DOE shall be signed by the individual who is authorized to sign such certification statements submitted to state or Federal regulatory agencies under the applicable regulatory program. The Contractor shall indemnify and hold harmless DOE and its employees, officers, agents and contractors from any costs, claims, demands, fines or any penalties, including legal costs, resulting from any failure of the Contractor to comply with applicable permits or regulatory requirements, or resulting from any obligations DOE may incur as a result of signing hazardous, dangerous waste, or other permit applications or submittals.

In addition, the Contractor shall provide to DOE copies of all accepted environmental permits, authorizations, and regulatory approvals issued by the regulatory agencies.

H.9 Required Insurance

a. The Contractor shall procure at its expense and maintain for the duration of the Contract, the following minimum insurance coverage:

Commercial General Liability: not less than $25,000,000 per occurrence and an annual aggregate of $50,000,000. Coverage must include, but not be limited to, pollution and environmental impairment for non-radioactive hazards; care, custody or control of DOE furnished-property; hazardous substance perils; premises/operations; underground explosion and collapse hazard; products/completed operations; broad form property damage; and blanket contractual liability coverage. Note: Not required for Part A.

b. The Contractor's insurance policies required herein shall specify that DOE or its assignee is named as an additional insured party.

c. Prior to commencement of any work on the Hanford Site, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the insurance required in Clause H.9.a. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of DOE in such insurance shall not be effective for such period as may be prescribed by the laws of the state in which this Contract is to be performed and, in no event, less than 30 days after written notice thereof to the Contracting Officer.

H.10 Litigation and Claims

a. The Contractor shall notify DOE of initiation of litigation against third parties, including proceedings before administrative agencies, in connection with this Contract. The Contractor shall proceed with such litigation in good faith and provide the Contracting Officer with periodic status of the litigation.

b. The Contractor shall give the Contracting Officer prompt notice in writing of any action, including any proceeding before any administrative agency, filed against the Contractor arising out of the performance of the Contract. Except as otherwise directed by the Contracting Officer in writing, the Contractor shall furnish promptly to the Contracting Officer, copies of all pertinent papers received by the Contractor with respect to such action.

c. The Contractor is responsible for all costs of litigation.

H.11 Protection of Lienholders' Interest

a. DOE recognizes that project financing associated with Contractor performance on the Contract may be accomplished using third-party financing, and as such, may be secured by a mortgage and/or security interest in this Contract and the Contractor equipment or facilities referred to herein.

b. DOE will consider:

1) requests for assignments of monies due or to become due under the Contract, provided the assignment complies with the Assignment of Claims Act;

2) requests to provide lenders or lienholders copies of any cure or show cause notice issued to the Contractor;

3) requests by lenders or lienholders for extension of response time to cure or show cause notices; and

4) a proposed takeover of Contract performance in the event the Contractor defaults in performance. Requests for takeover of the Contract on substantially the same terms and conditions will be approved if the proposed substitute party is acceptable to DOE.

H.12 Implementation of Section 3161 Policy on Work Force Restructuring

a. Pursuant to the requirements of Section 3161 of the National Defense Authorization Act for Fiscal Year 1993 (Pub. L. 102-484), preference is to be provided to displaced Contractor employees whose eligibility is defined in the DOE guidelines on work force restructuring or the *Site Workforce Restructuring Plan*, including lower-tier subcontractor employees, for work at the Hanford Site in accordance with the following, unless modified by final Section 3161 guidance issued by DOE. The Contractor shall:

1) require subcontractors and sub-tier contractors offering or bidding to perform a work activity to provide hiring preference, to the extent practicable, in filling vacancies to displaced employees who meet the eligibility criteria contained in DOE's *Work Force Restructuring Guidelines* and who are qualified for the prospective work.

2) hold discussions with affected unions or subcontractors and bargain where required by law regarding the implementation of the hiring preference provided by Clause H.12.a.1.

b. The Contractor and any lower-tier subcontractor subject to Clause H.12.a.1 shall negotiate with affected unions to implement the hiring preference, including if necessary, special agreements for allocation of work or arrangements for exceptions to internal union rules that might otherwise be obstacles to implementation of the hiring preference, consistent with DOE guidance regarding Section 3161.

c. Nothing in this Clause shall be construed to excuse the Contractor or any subcontractor from compliance with the requirements of any applicable law.

d. Nothing in this Clause is intended to create rights in third parties or persons.

H.13 Preference in Hiring

a. The Contractor will give preference, where practicable and consistent with the Contractor's judgement of business needs, for filling job vacancies for work under this Contract to eligible workers who meet the position qualification requirements, and who have been:

1) involuntarily separated from employment within the DOE complex as a result of restructuring of the DOE defense nuclear facilities; or,

2) voluntarily separated as a result of a work force restructuring and who used the Training and Education Assistance Program, as set forth below. (Priority in filling vacancies will be given to involuntarily separated workers over voluntarily separated workers.)

b. Preference will be given in the following order to involuntarily and voluntarily separated workers who are registered through DOE's Job Opportunities Bulletin Board System (JOBBS), as follows:

1) involuntarily separated eligible former workers of DOE, Richland Operations Office (RL), its contractors, subcontractors and lower-tier contractors;

2) involuntarily separated eligible former workers of other offices of DOE, its contractors, subcontractors and lower-tier contractors at DOE sites other than RL; and

3) eligible former workers of RL, its principal contractors, and their integrated subcontractors who have taken a voluntary layoff and who have significant participation in DOE's educational assistance program.

c. Where these requirements conflict with any existing contract or collective bargaining agreement, the Contractor may be relieved of the obligation to meet these requirements if it specifically identifies the conflict in its proposal and the reasons the conflict cannot be reasonably resolved by other means.

H.14 Labor Relations

a. Pursuant to Section 3161 of the National Defense Authorization Act for Fiscal Year 1993 (pub. L. 102-484), the Contractor shall provide hiring preference for filling specialized initial operating and maintenance positions for the Part B activities, to displaced and surplus incumbent contractor employees, except for positions required for work that historically has been determined to be covered by the Davis-Bacon Act. Accordingly, the Contractor shall:

1) Initially fill specialized operating and maintenance positions required for the Part B activities of this contract, other than managerial and supervisory positions, by offering a right of first refusal to qualified employees of the Management and Integration (M&I) contractor and its major subcontractors who have enrolled in training pools to be established and operated by the M&I contractor.

(a) The M&I contractor, in advance of the commencement of Phase I, Part B, shall be required to establish one-time training programs specifically for the purpose of retraining employees in the specialized skills required for each

facility required for Phase I, Part B operations. The training program shall terminate upon completion of the initial hiring process.

(b) Employees of the M&I contractor and its major subcontractors eligible for such training will be first those who have been displaced or who are facing displacement as a result of work force restructuring and are eligible for hiring preference pursuant to Section 3161 of the National Defense Authorization Act for fiscal year 1993. Any remaining training pool positions will be filled by the M&I contractor, based upon the recommendations of the Contractor.

2) Assist in the operation of the training pool by advising the M&I contractor on the number of specialized skill training positions to be established, on the training content and methodology and on skill proficiency requirements; and, if practicable, shall jointly conduct subsequent on-the-job training of training pool employees with the M&I contractor. Training pool employees will be employed solely by the M&I contractor.

3) Notify and solicit applications from the training pool employees as early as practicable prior to the commencement of operations of each facility required for Part B. Qualified employees shall be given a reasonable period within which to accept such offers, which in no case shall be less than 10 days.

4) Make no offers of employment, other than for managerial and supervisory positions, until the Contractor has fully complied with the requirement to offer training pool employees a right of first refusal for filling initial positions for Part B.

5) Determine the number of employees necessary for the efficient performance of this contract.

6) Not be required to offer a right of first refusal to any employee in the training pool who failed to meet all skill proficiency requirements established by the Contractor.

7) Fill vacant positions, other than those filled from the training pool pursuant to this Section, in accordance with the Contractor's normal business practices, subject to any applicable requirements of this contract, including Section 3161 of the National Defense Authorization Act for Fiscal Year 1993.

b. As a result of the training pool and initial hiring requirements, it is determined that the following will occur:

1) M&I training pool employees being retrained for manual job classifications will be represented for collective bargaining by the Hanford Atomic Metal Trades Council (HAMTC) under the then existing labor contract with the M&I contractor.

2) A majority of potential bargaining unit employees hired by the Contractor for Part B operations will be former training pool employees of the M&I contractor who had been represented by the HAMTC.

3) Employees hired from the M&I training pool are likely to have had experience and training in environmental remediation work, including tank waste storage, monitoring and treatment, and are likely to carry over substantially the same skills to their new work for Part B operations.

4) Based on the foregoing, the Contractor shall initially consult with HAMTC regarding the initial terms and conditions of employment of the employees previously represented by HAMTC, and shall recognize and bargain with HAMTC as the collective bargaining representative of those employees as a successor employer, consistent with the National Labor Relations Act.

c. In addition to, and consistent with the provisions set forth above, the Contractor will respect the rights of employees to:

1) organize, form, join or assist labor organizations, bargaining collectively through representatives of the employees' own choosing, and engage in other protected concerted activities for the purpose of collective bargaining; and

2) refrain from such activities.

d. To the extent required by law, the Contractor, or its major subcontractors shall give notice to any lawfully designated representative of its employees for purposes of collective bargaining agreement and, upon proper request, bargain to good faith impasses or agreement, or otherwise satisfy applicable bargaining obligations.

e. The Contractor shall, at the request of the Contracting Officer, provide all applicable documentation regarding any labor relations developments at the prime or subcontract level that involve or appear likely to involve:

1) possible strike situations affecting the facility;

2) referral to the Energy Labor-Management Relations Panel;

3) the National Labor Relations Board at any level;

4) recourse to procedures under the Labor-Management Act of 1947, as amended, or any other Federal or state Labor law; or

5) any grievance which may reasonably be assumed will be arbitrated under a Collective Bargaining Agreement.

H.15 Implementation of the Hanford Site Stabilization Agreement

a. The *Site Stabilization Agreement* for all construction work for DOE at the Hanford Site, which is referenced in this Section, consists of a Basic Agreement dated September 10, 1984, plus appendices thereto, signed by J.A. Jones Construction Services Company and Morrison-Knudsen Company, Inc., the Building and Construction Trades Department, AFL-CIO, and its affiliated International Unions, and the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America.

b. In accordance with the *Hanford Site Stabilization Transition Agreement*, dated December 18, 1986, and effective 12:01 a.m., March 1, 1987, ICF-KH is recognized as successor in interest to those rights, duties, and obligations previously held by J.A. Jones Construction Services Company under the terms of the *Site Stabilization Agreement*.

c. This Section applies to employees performing work, under contracts (or subcontracts thereunder) administered by the Richland Operations Office of the U.S. Department of Energy (DOE-RL) which are subject to the Davis-Bacon Act, in the classifications set forth in the *Site Stabilization Agreement* for work performed at the Hanford Site.

d. Contractors and subcontractors at all tiers who are parties to an agreement(s) for construction, work with a local union having jurisdiction over DOE-RL construction work performed at the Hanford Site, or who are parties to a national labor agreement for such construction work, shall become signatory to the *Site Stabilization Agreement* and shall abide by all of its clauses, including all current appendices thereto. Subcontractors at all tiers who have subcontracts with a signatory contractor or subcontractor shall become signatory to the *Site Stabilization Agreement* and shall abide by all of its articles, including all current appendices thereto.

Contractors and subcontractors at all tiers who are not signatory to the *Site Stabilization Agreement* and who are not required under this Section to become signatory to it, shall pay not less and no more than the wages, fringe benefits, and other employee compensation set forth in Appendix A thereto and shall adhere, except as otherwise directed by the Contracting Officer, to the following Articles of the *Site Stabilization Agreement*:

1) Article VII, Employment, Section 2 only

2) Article XII, Non-Signatory Contractor Requirements

3) Article XIII, Hours of Work, Shifts, and Overtime

4) Article XIV, Holidays

5) Article XV, Wage Scales and Fringe Benefits, Sections 1 and 2 only

6) Article XVII, Payment of Wages - Checking In & Out, Section 3 only

7) Article XX, General Working Conditions

8) Article XXI, Safety and Health

e. The obligation of the Contractor and its subcontractors to pay fringe benefits shall be discharged by making payments required by this Contract in accordance with the Articles of the amendments to the Davis-Bacon Act contained in the Act of July 2, 1964 (Public Law 88-349-78 Stat. 238-239), and the Department of Labor regulations in implementation thereof (29 CFR, Parts 1, 5).

f. DOE may from time to time provide notice to the Contractor of any changes in wages, fringe benefits, and other employee compensation as the *Site Stabilization Agreement*, including all current appendices thereto may be modified by the parties thereto from time to time. The Contractor shall not be entitled to any change in the Contract price due to any such change in wages or fringe benefits under the *Site Stabilization Agreement* during the term of the Contract.

g. The requirements of this Section are in addition to, and shall not relieve the Contractor of any obligation imposed by other sections or subsections of the Contract.

h. The Contractor agrees to maintain its bid or proposal records showing rates and amounts used for computing wages and other compensation, and its payroll and personnel records during the course of work, and to preserve such records for a period of three years thereafter, for all employees performing such work. Such records will contain the name and address of each such employee, the employee's correct classification, rate of pay, daily and weekly number of hours worked, and dates and hours of the day within which work was performed, deductions made, and amounts for wages and other compensation covered in this Section. The Contractor agrees to make these records available for inspection by the Contracting Officer and will permit him to interview employees during working hours on the job.

i. The Contractor agrees to insert the clauses of this Section in all subcontracts for the performance of work subject to the Davis-Bacon Act administered by DOE-RL at the DOE's Hanford Site.

H.16 Financial Responsibility for Closure, Decontamination and Decommissioning (D&D) and Site Restoration

a. The Contractor shall be responsible for closure of the Contractor's facility, which has been used for treatment, storage, and/or disposal of hazardous, dangerous, or radioactive mixed waste, in accordance with applicable laws and regulations. The Contractor shall also be responsible for decontaminating and decommissioning the facility and site restoration in accordance with the requirements of this Contract.

b. In order to ensure the Contractor is financially capable of carrying out these functions, the Contractor shall establish a financial assurance mechanism that will provide that sufficient funds are available at any time these functions may be required to be performed.

c. Financial assurance for closure, D&D, and site restoration shall be established in accordance with the means allowed pursuant to Washington Administrative Code (WAC) 173-303-620(4).

d. The Contractor shall have a detailed written estimate in current dollars of the cost of closing the facility in accordance with the RCRA closure plan and performing D&D and site restoration in accordance with the provisions of this Contract. The estimate:

1) must equal the cost of closure, D&D, and site restoration at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive as indicated by its closure and D&D plan;

2) must be based on the costs to the Contractor of hiring a third party (definition of third party available at WAC 173-303-620(3)(a)(ii)) to perform the closure, D&D, and site restoration;

3) may not incorporate any salvage value that may be realized with the sale of dangerous or mixed wastes, facility structures or equipment, land or other assets associated with the facility at the time of partial or final closure, D&D, and site restoration; and

4) may not incorporate a zero cost for dangerous or mixed wastes that may have economic value.

e. During the active life of the facility, the Contractor shall adjust the estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to establish financial assurance for closure, D&D, and site restoration. If the Contractor uses the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the Contractor's fiscal year. The adjustment may be made by recalculating the maximum costs of closure in current dollars or by using an inflation factor derived from the most recent *Implicit Price Deflator for Gross National Product* as published by the United States Department of Commerce in its survey of current business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. The first adjustment is made by multiplying the estimate by the inflation factor. The result is the adjusted estimate. Subsequent adjustments are made by multiplying the latest adjusted estimates by the latest inflation factor.

f. During the life of the facility, the estimate must be revised and adjusted for inflation no later than 30 days after a modification to the RCRA closure plan is approved by the Washington State Department of Ecology if the modification increases the cost of closure, D&D, or site restoration. If the contract provisions for performing D&D and site restoration are modified during the life of the facility, the estimate must be revised and adjusted for inflation no later

than 30 days after the Contract revision if the modification increases the cost of closure, D&D, or site restoration.

g. The Contractor shall submit the most current estimate for D&D, closure, and site restoration to DOE for review and approval 90 days prior to the initial receipt of dangerous or mixed wastes. Subsequent to this submittal, any updated estimate shall be submitted to DOE for review and approval within seven days of revision or adjustment.

h. DOE review and approval of cost estimates is for confirmation purposes only and does not itself constitute changes in the scope of work or fixed prices. The Contractor is not relieved of any obligation for fully funding or performing D&D, closure, and site restoration.

i. The method of providing financial assurance utilized by the Contractor shall be coordinated with DOE and shall be subject to DOE approval. The financial assurance mechanism shall provide that DOE be entitled to succeed to the interests of the Contractor in the event that the Contractor is not required to complete D&D, closure, or site restoration under this Contract and must provide that any funds held in escrow, trust, held in other accounts, or that are otherwise secured or guaranteed will be transferred to DOE for use by DOE in carrying out those activities.

H.17 Preservation of Antiquities, Wildlife, and Land Areas

Federal law provides for the protection of antiquities located on land owned or controlled by DOE. Antiquities include Indian graves or campsites, relics, and artifacts. The Contractor shall control the movements of its personnel and its subcontractor's personnel at the job site to ensure that any existing antiquities discovered thereon will not be disturbed or destroyed by such personnel. It shall be the duty of the Contractor to report to the Contracting Officer the existence of any antiquities so discovered. The Contractor shall also preserve all vegetation except where such vegetation must be removed for survey or construction purposes. Furthermore, all wildlife must be protected except for management programs approved by the Contracting Officer.

H.18 Tri-Party Agreement

The DOE, the U.S. Environmental Protection Agency Region 10 (EPA), and the Washington State Department of Ecology (Ecology) have entered into the *Hanford Federal Facility Agreement and Consent Order*, referred to as the *Tri-Party Agreement* (TPA), to ensure compliance with the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA). The TPA sets forth certain requirements and milestones for clean-up activities at the Hanford Site. The Contractor agrees to plan and perform the work under this Contract in accordance with the applicable requirements of the TPA and consistent with achieving the current milestones in the TPA. Benchmark milestones of the TPA are shown in Section J.

H.19 Contractor Acceptance of Notices of Violation or Alleged Violations, Fines and Penalties

a. The Contractor shall accept, in its own name, all responsibility and liability for notices of violations or alleged violations (NOV's/NOAV's) and fines and penalties issued by Federal or state regulators resulting from the Contractor's performance under this Contract.

b. The Contractor may conduct negotiations with regulators regarding NOV's/NOAV's, fines and penalties; however, the Contractor shall not make any commitments or offers to regulators which would bind DOE in any form or fashion, including monetary obligations, without receiving written concurrence from the Contracting Officer prior to making any such offers/commitments.

c. In the event that a regulatory agency assesses a monetary fine against DOE for violations caused by Contractor activities, including penalties assessed against DOE pursuant to the TPA, the Contractor shall reimburse DOE for the amount of the fine and other costs.

H.20 Pre-existing Conditions

a. DOE agrees to reimburse, and the Contractor shall not be held responsible for, any liability (including without limitation, a claim involving strict or absolute liability and any civil fine or penalty), expense, or remediation cost, but limited to those of a civil nature, which may be incurred by, imposed on, or asserted against the Contractor arising out of any site condition, act or failure to act which occurred before the Contractor assumed facility site responsibility on [effective date of Notice to Proceed with Part B work]. To the extent the acts or omissions of the Contractor cause or add to any liability, expense or remediation cost resulting from conditions in existence prior to [effective date of Notice to Proceed with Part B work], the Contractor shall be responsible in accordance with the terms and conditions of the Contract.

b. The Contractor has the duty to inspect the facilities and sites and identify to the Contracting Officer, in a timely manner, those conditions which it believes could give rise to a liability, obligation, loss, damage, penalty, fine, claim, action, suit, cost, expense, or disbursement, or areas of actual or potential noncompliance with the terms and conditions of the Contract or applicable law or regulation. The Contractor has the responsibility to take corrective action, as directed by the Contracting Officer, as required elsewhere in this Contract.

c. The obligations of DOE under this Clause are subject to the availability of appropriated funds and amounts obligated as specified in Clause H.2.

H.21 Termination Settlement

a. Notwithstanding the *Termination for Convenience* Clause in Section I, additional rights and responsibilities of the parties are specified in this Clause to effect the termination settlement.

b. In the event of a termination for convenience, all right to title and interest in all designs, improvements, additions, property or other assets is retained by the Contractor; unless DOE exercises its unilateral right in accordance with this Clause to take possession and thereby obtain title of all facilities and equipment related to the performance of this Contract. If DOE exercises this right, the Contractor shall be compensated in accordance with FAR 52.249-2.

If the termination is during Part A, DOE may take possession of completed plans, drawings, designs, specifications, cost estimates, permit data, and other information accumulated in performing the work. If the termination is during Part B, DOE may take possession of all technical data including proprietary data and data obtained from subcontractors, licensors, and licensees necessary to operate the facility as well as the designs, construction work in progress, completed facilities, equipment, and other property necessary for performance of the work. In addition, the Contractor will take all necessary steps to assign permits and authorizations for operation and closure of the facility to DOE or such other party as DOE may designate.

c. DOE's maximum liability under a termination for convenience will not exceed the amount of funds obligated under Clause H.2 of this Contract. The Contractor agrees to schedule and perform the work within this limitation and DOE is not required to reimburse the Contractor for amounts in excess of that obligated to this Contract. The Contractor may, at its own risk, continue performance when obligated amounts are insufficient to cover the anticipated termination liability.

d. If the termination for convenience is prior to completion of the processing of the minimum order quantities, the Contractor's allowable costs will include the financing cost and those legal, underwriter, third party credit support, and other professional fees directly related to obtaining the financing. Such cost must also be reasonable, allocable, and not conflict with any other cost principle under FAR Subpart 31.2. This Clause constitutes a deviation from FAR 31.205-20 as it would pertain to a termination for convenience.

(Note: This Clause is subject to pending approval of a deviation to FAR 31.205-20 in accordance with DEAR 901.403.)

H.22 Payments For Completed Work

DOE shall pay the Contractor, upon the submission of proper invoices or vouchers, the prices stipulated in this Contract for completed work in accordance with the following:

a. for Part A, completed work is defined as receipt and acceptance by DOE of all of the deliverables identified for Part A in Table C.4.1.;

b. for Part B, completed work is defined as product acceptance and waste treatment services in Table C.4.2.; and

c. invoices may be submitted no more frequently than monthly.

H.23 Assignment of Contract

This Contract may be assigned by DOE upon 30 days written notice. In the event of such assignment, DOE shall continue to perform nuclear safety regulatory oversight responsibilities. The rights and obligations of the Contractor shall not be adversely affected in any material respect as a result of such assignment.

H.24 Payment Pending Resolution of Contested Claim

In order to ensure that the Contractor is promptly compensated for all work that has been satisfactorily performed and accepted by the DOE, and notwithstanding any other provisions of this Contract, the DOE will pay the uncontested portion of any properly submitted claim, invoice, or other payment made in accordance with the terms of this Contract.

H.25 Economic Price Adjustments

The fixed-unit prices applicable for the processing of order quantities in excess of the minimum for the Part B waste envelopes, shall be adjusted as provided herein.

a. The fixed-unit prices specified for CLIN's 004A, B, C and 005B will be prospectively adjusted on October 1 of each year as follows:

APt = FP(q) * f

The Index factor (f) equals PPI_{fg}/PPI_{fgb}

Where:

APt is the adjusted Fixed Price.

FP(q) is the Fixed Price bid at time of authorization to proceed with Part B.

PPI_{fg} is the most current Non-Seasonally Adjusted Producer Price Index (PPI) for Finished Goods as published by the official Bureau of Labor Statistics monthly periodical entitled, *Producer Price Indexes*.

PPI_{fgb} shall be the value for the index for the base period TBD. This is the base reference and shall be the latest month made available as of the date of receipt of the *Business Implementation Plan* (Table 4-1). (As an example, it might state that PPI_{fgb} is the PPI_{fg} for June 1997.)

b. The calculations of rate adjustments shall always use the latest version of the *Producer Price Index* data published as of October 1 of each Contract year and shall always use non-seasonally adjusted rates.

H.26 Radiological and Nuclear Safety Regulation

The Radiological and Nuclear Safety regulatory program for this Contract set forth in Subsection C.5, Standard 4, *Regulatory Compliance Program* shall constitute the program utilized for this Contract to implement the requirements of DEAR 952.223-72, *Radiation Protection and Nuclear Criticality* and DEAR 952.223-74, *Nuclear Facility Safety Applicability.*

The TWRS Office of Radiological and Nuclear Safety Director shall have authority to stop work in the event the Contractor fails to comply with the Radiological and Nuclear Safety requirements. The Contractor shall not be entitled to an equitable adjustment in Contract time or price for any additional delays or costs resulting from the issuance of a stop work order by the TWRS Office of Radiological and Nuclear Safety Director.

H.27 Contractor Secondary Waste Inventory

The Contractor shall process Waste Feed Envelopes A, B, C and, if the option is exercised, D, in such a manner that for each metric ton of sodium processed for Envelopes A, B, C or for each metric ton of waste oxides processed exclusive of Na and Si for Envelope D, the resulting volumetric compositional inventory of secondary waste shall not exceed the levels in the Contractor's process description. The authorized waste products and the maximum levels for each are listed in Section J.

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SECTION I
Contract Clauses

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Section I Contract Clauses

The following clauses are incorporated by reference into the Contract.

Table I-1

Document	Title
DEAR 952.202-1	Definitions (Sept.1991)
FAR 52.203-1	Officials Not to Benefit (Apr. 1984)
FAR 52.203-3	Gratuities (Apr. 1984)
FAR 52.203-5	Covenant Against Contingent Fees (Apr. 1984)
FAR 52.203-6	Restrictions on Subcontractor Sales to Government (July 1988)
FAR 52.203-7	Anti-Kickback Procedures (Oct. 1988)
FAR 52.203-9	Requirement for Certification of Procurement Integrity-Modification (Nov. 1990)
FAR 52.203-10	Price or Fee Adjustment for Illegal or Improper Activity - Modified (Sept. 1990)
FAR 52.203-12	Limitation on Payments to Influence Certain Federal Transactions (Jan. 1990)
DEAR 952.204-2	Security (Apr. 1984)
FAR 52.204-4	Printing/Copying Double-Sided on Recycled Paper (May 1995)
DEAR 952.204-74	Foreign Ownership, Control, or Influence Over Contractor (Apr. 1984)
FAR 52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Nov. 1992)
FAR 52.212-13	Stop Work Order (Aug. 1989)
FAR 52.212-15	Government Delay of Work (Apr. 1984)
DEAR 2.212-72	Uniform Reporting System (May 1987)

Table I-1, *continued*	
Document	Title
DEAR 952.224-70	Paperwork Reduction Act (Apr. 1994)
DEAR 952.250-70	Nuclear Hazards Indemnity Agreement (Jan. 1992)
FAR 52.215-1	Examination of Records by Comptroller General (Feb. 1993)
FAR 52.215-2	Audit-Negotiation (Feb. 1993)
FAR 52.215-23	Price Reduction for Defective Cost or Pricing Data - Modification (Dec. 1994)
FAR 52.215-25	Subcontractor Cost or Pricing Data - Modifications (Dec. 1994)
FAR 52.215-33	Order of Precedence (Jan. 1986)
FAR 52.215-40	Notification of Ownership Changes (Feb. 1995)
FAR 52.219-8	Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (Feb. 1990)
FAR 52.219-9	Small Business and Small Disadvantaged Business Subcontracting Plan (Feb. 1995)
FAR 52.219-13	Utilization of Women-Owned Small Businesses (Aug. 1986)
FAR 52.219-16	Liquidated Damages - Small Business Subcontracting Plan (Aug. 1989)
FAR 52.220-3	Utilization of Labor Surplus Area Concerns (Apr. 1984)
FAR 52.220-4	Labor Surplus Area Subcontracting Program (Apr. 1984)
FAR 52.222-1	Notice to the Government of Labor Disputes (Apr. 1984)
FAR 52.222-3	Convict Labor (Apr. 1984)
FAR 52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation (Jul. 1995)
FAR 52.222-6	Davis-Bacon Act (Feb. 1995)
FAR 52.222-7	Withholding of Funds (Feb. 1988)

Table I-1, *continued*	
Document	Title
FAR 52.222-9	Apprentices and Trainees (Feb. 1988)
FAR 52.222-10	Compliance with Copeland Act Requirements (Feb. 1988)
FAR 52.222-11	Subcontracts (Labor Standards) (Feb. 1988)
FAR 52.222-12	Contract Termination -- Debarment (Feb. 1988)
FAR 52.222-13	Compliance with Davis-Bacon and Related Act Regulations (Feb. 1988)
FAR 52.222-14	Disputes Concerning Labor Standards (Feb. 1988)
FAR 52.222-15	Certification of Eligibility (Feb. 1988)
FAR 52.222-26	Equal Opportunity (Apr. 1984)
FAR 52.222-28	Equal Opportunity Preaward Clearance of Subcontracts (Apr. 1984)
FAR 52.222-35	Affirmative Action for Special Disabled and Vietnam Era Veterans (Apr. 1984)
FAR 52.222-36	Affirmative Action for Handicapped Workers (Apr. 1984)
FAR 52.222-37	Employment Reports on Special Disabled Veterans and Veterans of Vietnam Era (Jan. 88)
FAR 52.222-41	Service Contract Act of 1965 as Amended (May 1989)
FAR 52.222-42	Statement of Equivalent Rates for Federal Hires (May 1989)
FAR 52.222-43	Fair Labor Standards Act and Service Contract Act -- Price Adjustment (Multiple Year and Option Contracts) (May 1989)
FAR 52.223-2	Clean Air and Water (Apr. 1984)
FAR 52.223-3	Hazardous Material Identification and Material Safety Data (Nov. 1991)
FAR 52.223-6	Drug Free Workplace (Jul. 1995)
FAR 52.223-10	Waste Reduction Program (May 1995)
DEAR 952.223-72	Radiation Protection and Nuclear Criticality (Apr. 1984)

Table I-1, *continued*

Document	Title
DEAR 952.223-74	Nuclear Facility Safety Applicability (Apr. 1984)
FAR 52.224-1	Privacy Act Notification (Apr. 1984)
FAR 52.224-2	Privacy Act (Apr. 1994)
FAR 52.225-11	Restrictions on Certain Foreign Purchases (May 1992)
FAR 52.226-1	Utilization of Indian Organizations and Indian-Owned Economic Enterprises (Aug. 1991)
FAR 52.227-1	Authorization and Consent (Apr. 1984)
FAR 52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (Apr. 1984)
FAR 52.227-3	Patent Indemnity (Apr. 1984)
DEAR 952.227-9	Refund of Royalties
FAR 52.227-12	Patent Rights - Retention by the Contractor (long form)
DEAR 952.227-73	Additional Technical Data Requirements
DEAR 952.227-75	Rights in Technical Data -- Long Form -- Alternative I
DEAR 952.227-82	Rights to Proposal Data
FAR 52.228-11	Pledges of Assets (Feb. 1992)
FAR 52.229-3	Federal, State, and Local Taxes (Jan. 1991)
FAR 52.232-1	Payments (Apr. 1984)
FAR 52.232-8	Discounts for Prompt Payment (Apr. 1989)
FAR 52.232-11	Extras (Apr. 1984)
FAR 52.232-17	Interest (Jan. 1991)
FAR 52.232-23	Assignment of Claims (Jan. 1986)
FAR 52.232-25	Prompt Payment (Mar. 1994)
FAR 52.232-28	Electronic Funds Transfer Payment Methods (Apr. 1989)

Table I-1, *continued*

Document	Title
FAR 52.233-1	Disputes (Mar. 1994)
FAR 52.233-3	Protest After Award (Aug. 1989)
FAR 52.236-2	Differing Site Conditions (Apr. 1984)
FAR 52.236-7	Permits and Responsibilities (Nov. 1991)
FAR 52.236-8	Other Contracts (Apr. 1984)
FAR 52.237-2	Protection of Government Buildings, Equipment, and Vegetation (Apr. 1984)
FAR 52.242-1	Notice of Intent to Disallow Costs (Apr. 1984)
FAR 52.242-13	Bankruptcy (Apr. 1991)
FAR 52.243-1	Changes -- Fixed-Price - Alternate I (Apr. 1984)
FAR 52.244-1	Subcontracts (Fixed-Price Contracts) (Feb. 1995)
FAR 52.244-5	Competition in Subcontracting (Apr. 1985)
FAR 52.245-2	Government Property (Fixed-Price Contracts) (Dec. 1989)
FAR 52.246-2	Inspection of Supplies - Fixed-Price (July 1985)
FAR 52.246-4	Inspection of Services - Fixed-Price (Feb. 1992)
FAR 52.246-11	High Level Contract - Quality Requirements (Government Specification) (Apr. 1984)
FAR 52.246-15	Certification of Conformance (Apr. 1984)
FAR 52.246-16	Responsibilities of Suppliers (Apr. 1984)
FAR 52.246-20	Warranty of Services (Apr. 1984)
FAR 52.246-25	Limitation of Liability - Services (Apr. 1984)
DEAR 952.247-70	Foreign Travel (Apr. 1984)
FAR 52.249-2	Termination for Convenience of the Government (Fixed-Price) (Apr. 1984)

Table I-1, *continued*	
Document	Title
FAR 52.249-8	Default (Fixed-Price Supply and Service) (Apr. 1984)
FAR 52.249-14	Excusable Delays
FAR 52.252-2	Clauses Incorporated by Reference (June 1988)
FAR 52.252-6	Authorized Deviations in Clauses (Apr. 1984)
FAR 52.253-1	Computer Generated Forms (Jan. 1991)

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SECTION J

List of Documents, Exhibits & Other Attachments

No. DE-RP06-96RL13308

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Section J List of Documents, Exhibits, and Other Attachments

1. *Concept of the DOE Self-Regulatory Process for Radiological and Nuclear Safety for TWRS Privatization Contractors*, Revision A, November 1995. (To be provided.)

2. *Top-Level Radiological and Nuclear Safety Standards and Principles for TWRS Privatization Contractors*, DOE/RL-TLSR, Revision G, November 1995. (To be provided.)

3. *Guide to Establishing a Set of Essential Radiological and Nuclear Safety Standards and Requirements for TWRS Privatization*, DOE/RL-STDP, Revision C.2, November 1995. (To be provided.)

4. *DOE Self-Regulatory Process for Radiological and Nuclear Safety for TWRS Privatization Contractors,* DOE/RL-DSRP, Revision C.2, November 1995. (To be provided.)

5. *Top-Level Safeguards and Security Requirements for TWRS Privatization,* DOE/RL-TLSSR, Revision C, October 1995. (To be provided.)

6. *Contractor Vehicles and Equipment* (attached).

7. *Maximum Levels for Secondary Waste Generation.* (To be provided.)

8. *TPA Benchmark Milestones* (attached).

Attachment 6

Contractor Vehicles and Equipment

a. Each Contractor-provided vehicle shall show the Contractor's name so that it is clearly visible and shall at all times display a valid state license plate and safety inspection sticker. The Contractor will comply with all applicable Federal, state, and local laws with respect to Contractor vehicle and equipment ownership and movement.

b. Vehicles and equipment will be operated or transported on existing roads unless specific approval for off-road movement has been obtained in advance from the Contracting Officer (CO) or designee. Such off-road approval is not required for vehicle movement within the Contractor's designated facility site. Gross vehicle weight shall not exceed 600 pounds per inch of total tire width (total gross vehicle weight not to exceed 80,000 pounds) for travel on existing roads.

c. During high fire hazard periods, the Contractor shall adhere to all restrictions for off-road travel which include, but are not limited to, requiring vehicles to carry fire extinguishers, shovels, and radio communications. DOE reserves the right to ban all off-road travel during extreme fire hazard periods.

d. Overhead Restrictions. Under no conditions shall the Contractor operate or move cranes, hoists or similar equipment within 20 feet of overhead electrical conductors, guy wires, or substations, unless prior authorization for such operations is obtained from the CO, giving full details of the method of equipment operations. Authorization from the CO or designee shall also be obtained when transporting materials, machinery, or other equipment which establishes a height exceeding 15 feet from the road and/or ground surface.

e. Oversize Loads. An *Oversize Load* permit is required when the vehicle or load exceeds: Width - 8'-6," Height - 14,' Length - 40' (single unit); 48' (single trailing unit). Contact DOE to obtain the permit.

f. Heavy equipment will not be allowed to cross existing paved roadways unless such roadway is protected by rubber tires or other adequate protection such as heavy planking. Movement of heavy equipment equipped with crawler-type treads on existing paved surfaces is forbidden and such equipment must be transported to the worksite on rubber-tire trailers. Upon completion of the work, the equipment shall be promptly removed from the worksite.

Attachment 8

TPA Benchmark Milestones

Because the TPA is based on a traditional approach to procurement and operation of facilities, it contains milestones inherent to that approach. TPA benchmark milestones were based upon representation of a substantial, tangible process to site cleanup. The milestones which meet this criterion are listed below:

Milestone	Description	Date
M-45-00	Completion closure of SST farms	09/30/24
M-45-05	Retrieve wastes from all SSTs	09/30/18
M-50-00	Complete pretreatment processing of Hanford tank waste	12/31/28
M-50-02	Start hot operations of LLW pretreatment facility to remove Cs and Sr	12/31/04
M-50-04	Start hot operations of HLW pretreatment facility	06/30/08
M-51-00	Complete vitrification of HLW	12/31/28
M-51-03	Initiate hot operations of the HLW vitrification facility	12/31/09
M-60-00	Complete vitrification of LLW*	12/31/28
M-60-05	Initiate hot operations of the LLW vitrification facility*	06/30/05

*Although the milestones identify vitrification, use of this technology is not required for LAW immobilization under this Contract.

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SECTION K

Representations, Certifications, and Other Statement of Offerors

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Section K U.S. Department of Energy (DOE) Representations, Certifications, and Other Statements of Offerors

To be provided by the Offeror.

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SECTION L

Instructions, Conditions & Notices to Offers

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Section L Instructions, Conditions and Notices to Offerors

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Attachment 4: Information Required from Uncleared U.S. Citizens for Issuance of DOE-Security Badge*

* To be provided.

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Section L Instructions, Conditions, and Notices to Offerors

L.1 FAR 52.215-16 Contract Award (Jul. 1990) DEVIATION

a. DOE reserves the right to make multiple awards resulting from this Solicitation to the responsible Offeror(s) whose Offer(s) conforming to the Solicitation will be most advantageous to the DOE, price and other factors, specified elsewhere in this Solicitation, considered.

b. DOE may (1) reject any or all Offers if such action is in the public interest, (2) accept other than the lowest Offer; and (3) waive informalities and minor irregularities in Offers received.

c. DOE may award a Contract on the basis of initial Offers received, without discussions. Therefore, each initial Offer should contain the Offeror's best terms from a price and technical standpoint.

d. A written award or acceptance of Offer mailed or otherwise furnished to the successful Offeror within the time for acceptance specified in the Offer shall result in a binding Contract without further action by either party. Before the Offer's specified expiration time, DOE may accept an Offer, whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award. Negotiations conducted after receipt of an Offer do not constitute a rejection or counter offer by DOE.

e. Neither financial data submitted with an Offer, nor representations concerning facilities or financing, will form a part of the resulting Contract. However, if the resulting Contract contains a clause providing for price reduction for defective cost or pricing data, the Contract price will be subject to reduction if cost or pricing data furnished are incomplete, inaccurate, or not current.

f. DOE may determine that an Offer is unacceptable if the prices proposed are materially unbalanced between line items or sub-line items. An Offer is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the Offer will result in the lowest overall cost to DOE, even though it may be the low evaluated Offer; or, it is so unbalanced as to be tantamount to allowing an advance payment.

g. DOE may disclose the following information in post-award debriefings to Offeror(s): (1) the overall evaluated cost or price and technical rating of the successful Offeror; (2) the overall ranking of all Offerors, when any ranking was developed by DOE

during source selection; (3) a summary of the rationale for award; and (4) for acquisition of commercial end items, the make and model of the item to be delivered by the successful Offeror.

L.2 Proposal Preparation Instructions -- Volume I, *Offer and Other Documents*

a. General

Volume I, *Offer and Other Documents*, consists of the actual Offer to enter into a contract to perform the required work. It also includes required representations, certifications, and other statements of the Offeror, any other administrative information, and a summary of exceptions and deviations taken.

b. Format and Content

Volume I, *Offer and Other Documents*, shall include (in the order listed):

1) a brief executive summary of the Offer which shall be less than five pages in length. (The summary should include a synopsis of the major features and advantages of the Offer to DOE, a top-level organization chart, and identification of proposed management personnel and any major subcontractors and area of work they will perform. The Contractor may elect to provide the executive summary in VHS video format. The video should be less than 30 minutes in length and replaces the written section.).

2) the Offeror's demonstration with respect to the qualification criterion contained in Article M.2 of this Solicitation.

3) the following documents:

(a) a fully executed Standard Form-33, *Solicitation, Offer and Award* (*see* Section A);

(b) *Offeror Representations and Certifications* (*see* Section K);

(c) *Foreign Ownership, Control, or Influence Documents* (*see* Section K);

(d) any requested exceptions and deviations to the draft Contract; and

(e) any other information to be provided by the Offeror.

4) a Remittance Address. (If the Offeror's remittance address is different from the address shown on the SF-33, such address shall be furnished including ZIP Code.).

5) the following information:

(a) the name, address, telephone number, and facsimile number of the individual in the Offeror's firm to be contacted, if necessary, during evaluation of the proposal;

(b) the complete formal name and address of the Offeror's organization and/or other participants which would be utilized in any resulting contract; provide your Dun and Bradstreet Ltd., "DUNS," number for the prime contractor;

(c) the name of the Offeror's organizational unit (separate business unit) to be responsible for the work proposed;

(d) the name, address, telephone and facsimile numbers of representatives of Government agencies having administrative cognizance over the Offeror (such as contract administration, audit, and Equal Employment Opportunity (EEO));

(e) the acknowledgments of receipt of all amendments to this Solicitation as required by clause FAR 52.215-8; and

(f) the Offer shall identify and explain any exceptions or deviations taken or conditional assumptions made with respect to the Solicitation, *Representations, Certifications, and Other Statements of the Offeror* (Section K), the requirements of this Section, and other matters. (Any exception or deviation should be specifically addressed in Volume I, *Offer and Other Documents*, including the reporting requirements. Any exception, or deviation taken must contain sufficient amplification and justification to permit evaluation. The benefit to DOE shall be explained for each exception taken. Such exceptions will not, of themselves, automatically cause a proposal to be determined unacceptable. A large number of exceptions or one or more significant exceptions not providing benefit to DOE, however, may result in the rejection of the Offeror's proposal(s)).

L.3 Proposal Content/Submittal Data

a. General

1) Offerors shall submit copies of their proposal to arrive at the U.S. Department of Energy, Richland Operations Office, as described in paragraph L.12, not later than 4:00 p.m. local time on _____, 1996. Each proposal shall include an original and five copies of Volume I, an original and fifteen copies of Volume II, and an original and eight copies of Volume III and Volume IV.

2) Each proposal, and each copy thereof, should include four separate volumes as follows:

Volume I	*Offer and Other Documents*
Volume II	*Past Performance, Technical and Regulatory Proposal*
Volume III	*Business Proposal*
Volume IV	*Price Proposal* - Note: All price information is to be included in this volume.

Volume I has no size limitation except as noted in other articles of this Section. Volumes II and III shall not in the aggregate exceed 200 pages. Any pages beyond these limits will not be evaluated. Volume IV has no size limitation.

3) Proposals are expected to conform to the articles in this Section L entitled, *Proposal Preparation Instructions*, and be prepared in accordance with this Section. The proposal information will be reviewed to ensure compliance by the Offeror with all aspects of the Solicitation. To aid in evaluation, proposals shall be clearly and concisely written and shall be neat, indexed (cross-indexed as appropriate) and logically assembled. Extraneous, repetitious, or wordy submissions are not desired. Neither Offers or acknowledgments should be provided electronically, by facsimile, or telephone. Pages should be sequentially numbered with the volume, page numbers, the name of the Offeror, the date, and solicitation number on each page. Failure to respond to or follow the instructions regarding the organization and content of the technical proposal may result in the Offeror's proposal being deemed unacceptable.

4) In preparing the proposal, the outline shown in paragraph L.4.b shall be followed to facilitate evaluation. Proposals shall be submitted with a numbering system for paragraphs and sub-paragraphs that is consistent with these paragraphs.

5) Using the Evaluation Factors set forth in Section M, proposals will be evaluated in accordance with applicable FAR procurement policies and procedures.

6) Instructions are provided to aid Offerors in the preparation of their proposals. Instructions and the information contained in these instructions are not evaluation criteria for this Solicitation; the Evaluation Criteria are contained in Section M of this Solicitation.

b. Numbered Copies.

Each copy must be numbered (e.g., copy 1 of 15), and copy number 1 should be the original.

c. Computer diskettes.

In addition to the paper copies of the proposals requested in Article L.3.a.1, each Offeror shall provide the information in Volumes I, II, and III on computer diskettes. Include only that material prepared for this proposal within the authorized page count. Existing information such as financial statements, strategic plans, resumes or material obtained from third parties or previously prepared is not required on diskette.

Information provided shall comply with the following specifications:

1) Information shall be provided on three and one-half-inch diskettes, double-sided, high density 1.44MB, IBM PC DOS compatible.

2) Text must be provided in WordPerfect Version 5.1 or 5.2 format.

3) If used, spreadsheets should be provided in Excel, Version 5; however, Lotus 1-2-3, Version 2, will be accepted.

4) Text of proposal is required. Tables and graphs are optional.

5) Photographs, drawings, and maps should not be included on the diskettes.

6) Diskette and file organization should be referenced to the appropriate Proposal Volumes. Diskettes should be clearly labeled.

7) Include the name and phone number of a point-of-contact who can assist with technical questions/problems with the diskettes.

8) If the proposal was prepared using other applications programs and converted to satisfy the requirement for these diskettes, please verify that the conversion can be both machine read and printed from the information on the diskettes.

9) The Offeror shall provide two copies of the computer diskettes with the proposals.

L.4 Proposal Preparation Instructions -- Volume II, *Past Performance, Technical and Regulatory Proposal*

a. General

1) Volume II, *Past Performance, Technical and Regulatory Proposal* addresses the technical and management aspects of the acquisition, the Offeror's capabilities, and what the Offeror will do to satisfy the requirements of the *Statement of Work* (SOW). Since the *Past Performance, Technical and Regulatory Proposal* will be evaluated to determine such matters as the Offeror's understanding of the work to be performed, the technical approach, and the potential for completing the desired work, this Volume should be specific and complete in every detail. This Proposal should be prepared simply and economically, providing a straightforward, concise delineation of what it is the Offeror will do to satisfy the requirements of the SOW.

2) In order that the *Past Performance, Technical and Regulatory Proposal* may be evaluated strictly on the merit of the material submitted, no contractual price information is to be included in this Volume. If a *Past Performance, Technical and Regulatory Proposal* is received which exceeds the page limitation, the additional pages will not be read and evaluated by DOE. The pages which exceed the page limitation will be removed from the proposal and returned to the Offeror.

3) *Past Performance, Technical and Regulatory Proposal* Page Limitation

The page limitation for this volume excludes resumes and commitments of employment and agreements to relocate. Resumes are limited to two pages per resume. Attachment 1 of this Section should be used as an outline for the resumes. For interpretation of page guidelines, the front and back of a single sheet are counted as two pages when information is provided on both the front and back sides. The proposal text shall be at least 12-point type, single spaced, and printed on size 8 1/2-inch by 11-inch paper with 1-inch margins. Illustrations and tables shall be legible and no larger than 11-inch by 17-inch fold-outs, as appropriate for the subject matter. Each 11-inch by 17-inch fold-out is considered two pages when determining the number of pages. The front and back of size 11-inch by 17-inch paper is considered to be four pages when

determining the number of pages if information is provided on both sides. Pages shall be sequentially numbered with the page number on each page. The page guidelines constitute a limitation on the total amount of material that may be submitted for evaluation. No material may be incorporated in the Proposal by reference, attachment, appendix, as a means to circumvent the page limitation.

b. Format

1) Volume II, *Past Performance, Technical and Regulatory Proposal* shall include the following:

(a) Table of Contents
(b) Cross-Reference Index
(c) Past Performance, Technical and Regulatory Summary
(d) Past Performance, Technical and Regulatory Discussion
  (1) Past Performance
  (2) Technical and Regulatory Approach
    (A) Technical Approach
    (B) Regulatory Approach

2) These major headings may be subdivided or supplemented by the Offeror as appropriate.

(a) Technical and Regulatory Summary This short section (no more than four pages) shall contain a brief summary of the key points of the Proposal. Video and audio tapes will be reviewed; however, they are not required.

(b) Technical and Regulatory Discussion This section shall contain the major portion of the *Past Performance, Technical and Regulatory Proposal.* It should demonstrate the Offeror's capability of meeting the requirements set forth in the SOW. It should clearly address each of the Evaluation Factors set forth in Section M **except for price.** It should follow the same order as the Evaluation Criteria listed in Section M, and each part of the section should be identified with the pertinent Evaluation Factor number.

(c) Offerors shall key responses to the criteria by paragraph in order to assist in the evaluation process.

(d) The Proposal shall not merely offer to perform work in accordance with the SOW but shall outline the actual work proposed as specifically as practical. The SOW reflects the scope, requirements and objectives of the TWRS Privatization Program; therefore, repeating the SOW without sufficient elaboration will not be acceptable.

Important: Statements that the Offeror understands or can or will comply with all requirements; statements paraphrasing the SOW or parts of it; or phrases such as "standard operating procedures will be used" or "well-known techniques will be employed," etc., will be considered insufficient and may result in the rejection of the Offeror's proposal.

c. Content

1) Past Performance

The Offeror shall submit the following information for the Offeror (including all members of the Offeror's team) and major subcontractors to demonstrate past performance and discuss relevancy to current capability to design, obtain necessary finances, obtain required permits, build and successfully operate similar nuclear facilities:

For all major projects undertaken or completed in the last five years, describe the Offeror's past performance experience and qualifications, in light of current capabilities to perform the following activities:

- Process technology application
- Process and facility design
- Construction management
- Facility start-up
- Development and implementation of nuclear and radiological safety program
- Environmental permitting
- Dangerous and nuclear facility operations
- Decontamination, decommissioning, and RCRA closure
- Quality Assurance
- Experience in obtaining financing for projects of similar size and complexity

The following aspects of Technical and Business performance will be evaluated:

- Quality of products or services
- Timeliness of performance

- Effective cost control
- Satisfactory and effective business relationships
- Overall customer satisfaction
- Effectiveness of key personnel

Please provide the following information to support the experience and qualifications of your team:

- Customer name
- Duration of activity
- Total dollar value
- Workscope summary
- Point(s)-of-contact (reference's name and telephone number).

Note: The Offeror may provide information on problems encountered on the contracts and subcontracts identified above and corrective actions taken to resolve those problems. The Offeror should not provide general information on its performance on the identified contracts and subcontracts. General performance information will be obtained from the references.

Submit resumes for all key persons identified on the Organizational Chart. Show how their experience relates to the accomplishment of the technical requirements set forth in the SOW. As part of the evaluation process, DOE may contact the references listed in the resumes to verify relevant experience.

If the Offeror plans to use a team that has worked together before, identify the members of that team, discuss their previous team experience, and explain how that team experience benefits in performance of this Contract.

2) Technical and Regulatory Summary Discussion

The Offeror is required to demonstrate that it has the knowledge and capability to provide Hanford tank waste treatment and immobilization services using *privatized facilities*. Proposal information shall clearly demonstrate that:

(a) The Offeror has the ability to resolve the technical and management problems likely to be encountered and can obtain the necessary permits and licenses from Federal, state, and local agencies.

(b) The Offeror has the ability to plan and organize a program of this magnitude with a resultant product that meets specifications *(see* Subsection C.6) while achieving the benchmark milestones for the TWRS Program of the *Tri-Party Agreement* (*see* Section J).

3) Technical and Regulatory Approach:

The Offeror must provide the technical and regulatory approach to treat and immobilize Hanford tank waste, as follows:

(a) Technical Approach for each waste envelope, to include a:

- description of separations and immobilization technologies planned for the proposed facility, their performance, the waste form's physical, chemical and radiological characteristics, the waste loading capacity per individual waste form, capability to increase to production scale and specific information on risks/uncertainties and mitigating strategies;

- description of operational experience with the proposed processes, including problems encountered during testing; start-up; and initial/current operations;

- description of each principal waste form; the approach in design to qualify waste form products; and the procedures, processes, and testing used to certify that the products meet requirements;

- description of byproducts to be produced as a result of the process; their likely chemical, physical and radiological characteristics; a description of the analyses conducted to derive the above information; and, a description of the expected volumetric compositional inventory of the secondary wastes generated by the proposed waste treatment system. It is expected that a volumetric compositional limitation for secondary waste will be incorporated into the Contract as a bounding requirement during Part B (*see* Clause H.27);

- preliminary hazards analysis for separations and immobilization technologies;

- description of any risks that would have major technical, regulatory, schedule, or cost impacts. Describe the proposed actions to mitigate the risks; and

- description of the methodology or process to minimize high level waste quantities and to maximize waste loading for each

individual waste product. It is expected that bounding requirements for high level waste quantities and waste loading requirements for individual waste products will be incorporated into the Contract during Part B.

(b) Regulatory Approach, to include:

- the proposed regulatory approach to obtain all necessary environmental permits to operate the facility in order to meet Contract schedules;

- the proposed approach for radiological and hazardous material handling and processing which protects the general public, worker safety and the environment;

- the proposed concept and approach for Radiological and Nuclear Safety which addresses the following:

  - the complexity and viability of proposed process and technology (based on description of separations and immobilization processes and technology) to provide for effective Radiological and Nuclear Safety;

  - the extent to which the proposed system limits potential risk associated with processes and technology based on preliminary hazards assessment;

  - a draft of the Integrated Standards - Based Safety Management Plan; and

  - the conceptual approach to developing radiation exposure standards for workers under accident conditions.

- a draft of a *Quality Assurance Plan* per 10 CFR Part 830.120;

- a demonstration that it has experience in obtaining the required regulatory permits and complying with applicable regulations regarding: radiological material processing, environmental protection, public safety, and worker safety;

- a description of the compliance strategy to limit waste releases to the environment;

- a draft of the *Standards and Requirements Identification Document* that identifies the approach to specify nuclear and radiological safety standards which will include the following: Design Basis, Defense in Depth, Emergency Preparedness, Reliability, Availability, Maintainability, and Inspectability;

- a draft outline of process and standards for worker radiological exposure including concepts for safe handling and processing of Radiological and Hazardous Material; and

- a description of the proposed approach for operating an integrated system of safeguards and security to deter, prevent, detect and respond to unauthorized possession, use or sabotage of nuclear materials and sabotage of toxicological material.

L.5 Proposal Preparation Instructions -- Volume III, *Business Proposal*

a. Contents

1) Financial Viability

The Offeror shall provide the following information:

(a) Information supporting the long-term financial viability of the Offeror in order to successfully complete Parts A and B of the Contract. (This should include a separate discussion of the ability to execute Decontamination and Decommissioning Operations/RCRA Closure.)

(b) A description of the financial commitment to the project including a description of the Offeror's collective ability and commitment to bind or pledge a significant equity investment in the total Contract work. This description should include sufficient financial information (i.e., financial statements) such that DOE can reasonably determine the ability and commitment of the Offeror to provide the equity investment.

(c) A complete description of the plan for financing each phase of the project, including equity, senior debt (both taxable and tax-exempt), subordinate debt, financial guarantees, letters of credit, performance bonds and warranties. As part of the financing plan, include a

summary of planned sources and uses of funds for Part A and Part B, estimated capital costs for Part B, and operating costs. The plan should cover the following and be tied to the life-cycle cost:

- Permit Application and technical report
- Permitting and Detailed Design effort
- Construction
- Operation
- Decontamination & Decommissioning and RCRA closure

For each financing arrangement identified above, a description of significant terms and conditions (i.e., interest rates, contingencies, etc.) and current status (i.e., preliminary agreement, final agreement pending award of contract, etc.) should be provided. While Offerors are not required to provide copies of actual financing arrangements or proposed financing arrangements with proposal submission, Offerors are advised that the Contracting Officer may request copies of these documents prior to award of any Contract.

2) Business Approach

Demonstrate the proposed approach to manage the business aspects of this Contract effort including the following information:

(a) Description of financial development experience, demonstrating the Contractor has successfully directed the development, construction, and financial closure of a major project (i.e., with a total cost in excess of $100 Million during the past five years).*

(b) If the Offeror is composed of a team arrangement of separate contractors (i.e., joint venture, consortium, partnership, etc.), provide a description of financial, business and organizational relationships and responsibilities between the various business entities that compose the Offeror. Identify which organizational entity of the Offeror will be responsible to DOE for the successful completion of the Contract and what mechanisms will be used by that entity to manage the other organizational entities.

(c) Description of the Offeror's proposed organizational structure. A description of major line and staff organizations with their respective roles, responsibilities and relationships to other organizational sub-elements should also be provided.

(d) Description of the extent of the Offeror's Corporate Commitment to the project including: financial commitments, personnel commitments, and organizational support to ensure the success of the Contract effort.

*Note: This information will also be used to determine if the Offeror meets the Qualification Criterion in Section M, Article M.2.

L.6 Proposal Preparation Instructions -- Volume IV, *Pricing Proposal*

a. Format

The Offeror's Pricing Proposal shall consist of a completed Section B form. The Offeror will provide Firm Fixed-Prices for CLINs 001, 003, and 004 and may provide Firm-Fixed prices for CLINs 002 and 005 if the Offeror is proposing services for the High-Level Waste option.

b. Requirement for Cost or Pricing Data

The Offeror is not requested to provide cost or pricing data at this time. The above proposal instructions are predicated upon the assumption that sufficient competition will be found to exist so that certified cost or pricing data will not be required. In the event that an insufficient level of competition exists, DOE reserves the right to request certified cost or pricing data or other data considered necessary for evaluation purposes.

L.7 Preproposal Conference

a. Date and Time

*** *For purposes of this Draft Solicitation, it should be noted that a Preproposal Conference and Tour of the Hanford Site will occur two to three weeks following issuance of the FINAL SOLICITATION.* ***

Preproposal Conference

Time: 9:00 a.m. to 4:30 p.m. Local Time
Date: _____
Place: Federal Building Auditorium
825 Jadwin Ave.
Richland, Washington 99352

Site Tour

Time: 8:00 a.m to 5:00 p.m. Local Time
Date: _____
Place: Tours depart the Federal Building, Richland, Washington

b. Limited Attendance

Please limit attendance at the Preproposal Conference and the Site Tour to two individuals per firm. Individuals attending the Preproposal Conference must notify, in writing, the individual listed below by _____, 1996. Attachment 2 is *Intention to attend Preproposal Conference*. Personnel attending the tour who are U.S. Citizens must provide all the information asked for in Attachment 4, *Information Required From Uncleared U.S. Citizens for Issuance of a DOE-RL Security Badge*, and return it no later than 4:00 p.m. local time, _____, 1996, to the address shown below. Responses may be telefaxed to (509) _____.

ATTN:
Mr. Peter Rasmussen
U. S. Department Of Energy
Richland Operations Office
P.O. Box 550, Mail Stop K6-51
Richland, Washington 99352

If any non-U.S. citizens are proposed for attendance, DOE Form, *Request for Foreign National Unclassified Visit or Assignment,* must be completed. This may be done via telephone by contacting DOE-RL Office of External Affairs (OEA) at (509) 376-7501. It is strongly recommended that the OEA be contacted immediately upon receipt of the Solicitation as it generally requires several weeks to process visit approval for non-U.S. citizens. If any non-U.S. citizen encounters difficulty in coordinating his/her visit with OEA, please contact _____ at (509) _____.

c. Written Questions

Technical and contracting personnel will be available at the Preproposal Conference to discuss requirements and answer questions. In order to allow preparation of responses and to expedite discussion, you are requested to submit your questions in WordPerfect$_{©}$, version 5.0 or higher, via a 3.5-inch diskette, to arrive at DOE by 4:00 p.m. local time, _____, 1996. In order to be considered for an answer, each question must clearly specify the Solicitation areas (attachment, page, etc.) to which it refers. When possible, questions should be phrased to permit "Yes" or "No" responses.

d. Submittal Of Written Questions

To expedite handling, please mark the outside of the envelope properly and clearly, as follows: "PREPROPOSAL QUESTIONS--SOL. NO. DE-RP06-96RL13308." Envelopes should be addressed to the SEB at the post office box identified in Article L.7.b.

L.8 FAR 52.215-19 Period for Acceptance of Offer (Apr. 1984)

If this Offer is accepted within 180 calendar days from the date specified in the Solicitation for receipt of Offers, the Offeror agrees, in compliance with the Solicitation, to furnish any or all items on which prices are Offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the Schedule.

L.9 DEAR 952.233-2 Service of Protest (Nov. 1988)

a. Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency and copies of any protests that are filed with the Government Accounting Office (GAO) or the General Services Administration Board of Contract Appeals (GSBCA), shall be served on the Contracting Officer (*see* Section G) (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

U.S. Department of Energy
Richland Operations Office
Procurement Services Division
P.O. Box 550
Richland, Washington 99352

b. The copy of any protest shall be received in the office designated above on the same day a protest is filed with the GSBCA or within one day of filing a protest with the GAO. Another copy of a protest lodged with the GAO shall be furnished to the following address:

U.S. Department of Energy
Business Clearance Division (HR-522.1)
Forrestal Building, Room 11-018
1000 Independence Avenue, SW
Washington, DC 20585

c. Another copy of a protest lodged with the GAO or the GSBCA shall be furnished to the following address within one day after the filing of the protest with the GAO:

U.S. Department of Energy
Assistant General Counsel for
Procurement and Financial Assistance (GC-61)
1000 Independence Avenue, SW
Washington, DC 20585
FAX: (202) 586-4546

L.10 Content of Resulting Contract

Any Contract awarded as a result of this Solicitation will contain Part I, *The Schedule*, Part II, *Contract Clauses*, and Part III, *List of Documents, Exhibits and Other Attachments.* Blank areas appearing in these Sections, indicated by "(To Be Determined)" or "TBD" will be completed during or after negotiations.

L.11 DOE Issuing Office

Source Evaluation Board - TWRS Privatization
U. S. Department Of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352
Point of Contact:
Telephone: (509) _____

L.12 Time, Date, and Place Proposals are Due

Mailed proposals shall be marked as follows:

FROM: _____
_____
_____

MAIL TO:

Source Evaluation Board - TWRS Privatization
U. S. Department Of Energy
Richland Operations Office
P.O. Box 550, Mail Stop A4-52
Richland, Washington 99352

SOLICITATION NO. DE-RP06-96RL13308
DUE _____

(Attention:)

Next Day Delivered (Express Mail, Federal Express or United Parcel Service) proposals shall be marked as follows:

FROM: _____
_____
_____

SEND TO: Source Evaluation Board - TWRS Privatization
U. S. Department Of Energy
Richland Operations Office
825 Jadwin Ave., Mail Stop A4-52
Richland, Washington 99352

SOLICITATION NO. DE-RP06-96RL13308
DUE _____
(Attention:)

Hand-carried proposals shall be marked as follows:

FROM: _____
_____
_____

HAND CARRY TO: Source Evaluation Board - TWRS Privatization
U. S. Department of Energy
Richland Operations Office
825 Jadwin Ave., Mail Stop A4-52
Richland, Washington 99352

SOLICITATION NO. DE-RP06-96RL13308
DUE _____
(Attention:)

Note: Offerors hand-carrying proposals to the above address must telephone one of the following individuals prior to attempting delivery in order to ensure their availability:

_____

_____

a. All proposals are due NO LATER THAN 4:00 p.m. local prevailing time on _____, 1996. (Caution: See the proposal submission instructions, including the provision describing treatment of late submissions, modifications and withdrawals of proposals.)

b. If the Offeror elects to forward the Offer by means other than the U.S. Mail, responsibility of insuring that the Offer is received at the place and by the date and time specified in this Solicitation shall be assumed by the Offeror. Facsimile Offers will not be accepted.

c. It may not be possible to hand carry the package(s) outside of the hours 8:00 a.m. to 4:00 p.m. workdays. Delivery to any other location may result in late receipt of the proposal and is strongly discouraged.

L.13 Small Business Size Standards and Set-Aside Information

This acquisition is unrestricted and contains no set-aside provisions. However, for purposes of this Solicitation, a small business is defined as $3.5 million annual receipts. The Standard Industrial Classification (SIC) is 8999.

L.14 Expenses Related to Proposal or Bid Submissions

This Solicitation does not commit DOE to pay any costs incurred in the submission of any proposal or bid or in making necessary studies or designs for the preparation thereof or to acquire or contract for any services.

L.15 Amendment of the Solicitation

The only method by which any term of the Solicitation may be modified is by an express, formal amendment to the Solicitation generated by the issuing office. No other communication made at any scheduled Preproposal Conference or subsequent discussions, whether oral or in writing, will modify or supersede the terms of the Solicitation.

L.16 Commitment of Public Funds

The Contracting Officer is the only individual who can legally commit DOE to the expenditure of public funds in connection with the proposed procurement. Any other commitment, either explicit or implied, is invalid.

L.17 Notice of Labor Provisions

a. Offerors should note that this Solicitation includes in the proposed Contract, clauses requiring the listing of employment openings with the local office of the Federal-State employment service system where a contract award is for $10,000 or more. (*See* clauses *Affirmative Action for Special Disabled and Vietnam Era Veterans* and *Affirmative Action for Handicapped Workers* in Section I.)

b. General information regarding the requirements of the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), the Contract Work Hours Standards Act (40 U.S.C. 327-333), and the Service Contract Act of 1965 (41 U.S.C. 351-358) may be obtained from the Department of Labor, Washington, D.C., 20310, or from any regional office of that agency. Requests for information should include the Solicitation number, the name and address of the issuing agency, and a description of the supplies or services.

L.18 Responsible Prospective Contractors

DOE may conduct pre-award surveys in accordance with FAR 9.106 and may solicit from available sources, relevant information concerning the Offeror's record of past performance, and use such information in making determinations of prospective Offeror responsibility.

L.19 Discussions with Offerors

The Contracting Officer may conduct written or oral discussions with any or all of the Offerors. Offerors will be notified of the date, time, and place for any such oral discussions. Any such discussions will be conducted in accordance with applicable Government acquisition policies and procedures.

L.20 Information of Award

The Contracting Officer shall award a Contract with reasonable promptness to the successful Offeror. Written notice to unsuccessful Offerors and contract award information will be promptly released in accordance with applicable Government regulations applicable to negotiated acquisitions.

L.21 Disposition of Proposals or Bids

Proposals or bids will not be returned (except for timely withdrawals). Proposals not required for official record retention will be destroyed.

L.22 Disposition of Solicitation Documents

Drawings, specifications, and other documents supplied with the Solicitation may be retained by the Offeror (unless there is a requirement for a document to be completed and returned as a part of the Offer).

L.23 Alternate Proposal Information

Alternate proposals which are not consistent with the SOW and these instructions or which are only for a portion of the work, are not solicited, are not desired, and shall not be evaluated.

L.24 Availability of Referenced Documents

Certain documents, available for your information and use, are in the DOE Public Reading Room located at Washington State University, Tri-Cities Campus, 100 Sprout Road, Richland, Washington 99352, telephone (509) 376-8583.

L.25 DEAR 952.215-70 Notice - Subcontractor Representations and Certifications

Offerors are required to obtain the representations and certifications listed below from subcontractors prior to the award of any subcontract for furnishing supplies or services under the Prime Contract:

a. *Small Business Concerns Representation*, FAR 52.219-1, *Small Disadvantaged Business Concern Representation,* FAR 52.219-2, if the Prime Contract contains the *Small Business and Small Disadvantaged Business Subcontracting Plan* clause from DEAR 952.219-9.

b. *Organizational Conflicts of Interest Disclosure and Representation*, DEAR 952.209-70, if the Prime Contract contains either of the clauses entitled *Organizational Conflicts of Interest - General*, DEAR 952.209-71, or *Organizational Conflicts of Interest - Special Clause,* DEAR 952.209-72.

c. *Certification of Nonsegregated Facilities*, FAR 52.222-21, if the Prime Contract includes the clause entitled *Equal Opportunity,* FAR 52.222-26.

d. *Previous Contracts and Compliance Reports*, FAR 52.222-22, if the Prime Contract contains the clause entitled *Equal Opportunity*, FAR 52.222-26.

e. *Clean Air and Water Certification*, FAR 52.223-1, if the Prime Contract contains the clause entitled *Clean Air and Water,* FAR 52.223-2.

f. *Buy American Act Certification,* FAR 52.225-1, if the Prime Contract contains either of the clauses entitled *Buy American Act-Supplies*, FAR 52.225-3, *Buy American Act-Construction Materials,* FAR 52.225-5.

g. **(DEVIATION)** *Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions,* FAR 52.203-11, if the Prime Contract contains the clause entitled *Limitation on Payment to Influence Certain Federal Transactions,* FAR 52.203-12.

h. **(DEVIATION)** *Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters,* FAR 52.209-5, if the Prime Contract contains the clause entitled *Protecting DOE's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment*, FAR 52.209-6.

L.26 DEAR 952.227-83 Rights in Technical Data Solicitation Representation (Apr. 1984)

The Section of this Solicitation which describes the work to be performed also sets forth DOE's known requirements for technical data. The *Additional Technical Data Requirements* clause, if included in this Solicitation, provides DOE with the option to order additional technical data, the requirements for which are not known at the time of contracting. There is, however, a built-in limitation on the kind of technical data which may be required. This limitation provides that the Contractor may withhold delivery of proprietary data. Accordingly, it is necessary that the Offeror's proposal state that the work to be performed and the known requirements for technical data as set forth in the Solicitation have been reviewed, and either state that, to the best of its knowledge, no data will be withheld, or submit a list identifying the proprietary data which, to the best of its knowledge, will likely be used in the Contract performance and will be withheld.

L.27 Intention to Propose

Please review this Solicitation. To enable us to update our *Source List*, please complete the information in Attachment 3 *Intention to Propose* to this Section L and mail to the address shown on the Attachment by the earliest practical date.

L.28 Notice

The following Solicitation provisions and/or Contract clauses pertinent to this Section are incorporated by reference:

a. Federal Acquisition Regulation (48 CFR Chapter 1) Solicitation Provisions

FAR Number	Provision Title	Date of Provision
52.209-7	*Organizational Conflicts of Interest Certificate - Marketing Consultants*	NOV 91
52.214-4	*False Statements*	APR 84
52.214-34	*Submission of Offers In The English Language*	APR 91
52.214-35	*Submission of Offers In U.S. Currency*	APR 91
52.215-5	*Solicitation Definitions*	JUL 87
52.215-7	*Unnecessarily Elaborate Proposals or Quotations*	APR 84
52.215-8	*Amendments to Solicitations*	DEC 89
52.215-9	*Submission of Offers*	DEC 89
52.215-10	*Late Submissions, Modifications, and Withdrawals of Proposals*	DEC 89
52.215-12	*Restriction on Disclosure and Use of Data*	APR 84
52.215-13	*Preparation of Offers*	APR 84
52.214-14	*Explanation To Prospective Offeror's*	APR 84
52.215-15	*Failure To Submit Offer*	APR 84
52.222-24	*Pre-Award On-Site Equal Opportunity Compliance Review*	APR 84

L.29 Notice of Protest File Availability

a. If a protest of this Solicitation is filed with the General Accounting Office (GAO) in accordance with 4 CFR Part 21, any actual or prospective Offeror may request the Department of Energy to provide it with reasonable access to the protest file pursuant

to FAR 33.104(a)(3)(ii), implementing section 1065 of Pub. L. 103-155. Such request must be in writing and addressed to the Contracting Officer for this Solicitation.

b. Any Offeror who submits information or documents to the Department for the purpose of competing in this Solicitation is hereby notified that information or documents it submits may be included in the protest file that will be available to actual or prospective Offerors in accordance with the requirements of FAR 33.104(a)(3)(ii). The Department will be required to make such documents available unless they are exempt from disclosure pursuant to the Freedom of Information Act. Therefore, Offerors should mark any documents to which they would assert that an exemption applies. See 10 CFR 1004.

Attachment 1

Resume Format

Individual Named:

Position With Company:

Experience Summary: (A summary of the individual's overall experience and capabilities)

Current Employer and Assignment:

Experience Related to the *Statement of Work**:

Technical Qualifications: (Include special skills such as technical training, professional credentials, and specific educational specialties.)

Education:

Proposed Assignment on Contract:

Date Available:

Citizenship:

Level of DOE Security Clearance:

*Include three business-related references.

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Attachment 2

Intention to Attend Preproposal Conference

Solicitation No. DE-RP06-96RL13308
THE TANK WASTE REMEDIATION SYSTEM (TWRS) PRIVATIZATION IN SUPPORT OF RICHLAND DOE OPERATIONS OFFICE

TO: Mr. Peter Rasmussen
U.S. Department of Energy
Richland Operations
P.O. Box 550, Mail Stop K6-51
Richland, WA 99352

From: _____
(Name of Offeror)

_____
(Company/Division)

_____
(Address)

_____
(City, State, ZIP Code)

_____
(Telephone No.)

Please be advised that the following representatives from my firm will attend the Preproposal Conference:

Name	Title	Telephone No.
_____	_____	_____
_____	_____	_____

Note: Attendance to the Preproposal Conference is limited to (_2_) people per firm.

_____ _____
(Signature) (Date)

_____
(Name)

_____
(Title)

_____
(Name of Firm)

_____
(Telephone No.)

Attachment 3

Intention to Propose

TO: Mr. Peter Rasmussen
U.S. Department of Energy
Richland Operations
P.O. Box 550, Mail Stop K6-51
Richland, WA 99352

From: _____
(Name of Offeror)

_____
(Company/Division)

_____
(Address)

_____
(City, State, ZIP Code)

_____
(Telephone No.)

Please be advised that I _____ plan/ _____ do not plan, to submit a proposal to the U.S. Department of Energy in response to Solicitation No. DE-RP06-96RL13308, The Tank Waste Remediation System (TWRS) Privatization in Support of the Richland DOE Operations Office.

_____ _____
(Signature) (Date)

_____
(Name)

_____
(Title)

_____
(Name of Firm)

_____
(Telephone No.)

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TWRS
PRIVATIZATION

SECTION M

Evaluation Factors For Award

No. DE-RP06-96RL13308

November 1995

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Section M Evaluation and Award Factors

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Section M Evaluation and Award Factors

M.1 Introduction

DOE may award more than one multi-phase (two-part) parallel contract(s) as a result of this Solicitation, subject to the evaluated merits of the proposals as discussed below, and the availability of funds. DOE reserves the right to award one contract or make no award based on such considerations. Award will be made to the Offeror(s) who meets the requirements of FAR Subpart 9.1, *Responsible Prospective Contractor*, and whose proposal is considered to be most advantageous to DOE, price and other factors considered. Offerors are advised that DOE may make award to other than the low Offeror(s).

Sections M.2 - M.6 of the Solicitation contain a qualification criterion and evaluation factors for award of Part A only. Evaluation factors for the initiation of Part B are included in M.7. The selected Contractor(s) must show the requisite technical, business and regulatory capacity to perform all parts of the Contract (including Part B) through ordering the maximum quantities of the waste envelopes proposed, decontamination and decommissioning and Resource Conservation and Recovery Act (RCRA) closure.

Failure to provide a proposal for the option of high-level waste processing (Option CLIN 002) will not prevent DOE from making an award to a Contractor offering a proposal only for low-activity waste processing services. Offerors must provide a proposal for low-level waste processing services.

M.2 Qualification Criterion

Proposals must demonstrate the Offeror's ability to satisfy the qualification criterion listed below. All proposals not meeting the qualification criterion will be eliminated from further consideration.

The Offeror must, individually or, if applicable, collectively, demonstrate that it has within the past five years successfully directed the design, development, construction, and financial closure of a major project with an overall cost of at least $100 million.

M.3 Evaluation Factors

The following evaluation factors will be used to select the Offeror(s) to which DOE will award Contracts under this Solicitation: past performance, technical and regulatory approach, business approach, and price which provides the best value to DOE.

M.4 Relative Order of Importance

Past performance is somewhat more important than technical and regulatory approach. Technical and regulatory approach is more important than business approach. The above factors shall be adjectivally rated. Price is of less importance than the other evaluation factors. Price will not be adjectivally rated.

Although price is of less importance than the other evaluation factors, a cost efficient program is important to DOE. The importance of price as an evaluation factor will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based.

M.5 Past Performance, Technical, Regulatory and Business Evaluation Factors

The proposals will be evaluated in accordance with the following factors and subfactors:

a. Past Performance - Past performance will be evaluated to determine the degree to which the Offeror (including other members of the proposed team and/or major subcontractors) has demonstrated successful performance in designing, obtaining necessary financing and required permits, building, and successfully operating similar facilities within the past five years. Such past performance shall be evaluated for quality of products or services provided, technical and management success in meeting critical performance goals, timeliness in meeting contract requirements, demonstrated effective cost controls, successful management of numerous and complex business relationships for similar management arrangements, customer satisfaction, and effectiveness and responsiveness of key personnel proposed.

b. Technical and Regulatory Approach - Under Technical and Regulatory Approach, the factors of Technical Approach and Regulatory Approach are considered equal in importance.

1) Technical Approach - The degree to which the Offeror's proposed approach can demonstrate the following (not listed in order of importance):

(a) ability of the proposed separation and immobilization technologies to meet contract requirements regarding separation and immobilization;

(b) ability of the proposed system to handle the various types of waste feed envelopes;

(c) ability of the proposed system to handle the required volume of waste feed requirements;

(d) ability of the proposed system to minimize the amount of secondary waste streams for which DOE will be responsible;

(e) that risks are mitigated to acceptable levels;

(f) ability of the system to maximize waste loading per individual waste product; and

(g) ability to meet or exceed demand/schedule requirements.

2) Regulatory Approach - The proposed approach will be evaluated to determine the extent to which it demonstrates the ability to protect the general public, worker safety, and the environment. The Offeror will be evaluated on the extent to which (not listed in order of importance):

(a) the proposed regulatory approach is likely to result in all necessary environmental permits to operate the facility in order to meet contract schedules;

(b) the proposed approach for radiological and hazardous material handling and processing protects the general public, worker safety, and the environment;

(c) the concept and approach for Radiological and Nuclear Safety addresses the following:

(1) the complexity and viability of proposed process and technology (based on description of separations and immobilization processes and technology).

(2) development of a mitigation strategy covering potential risks associated with processes and technology identified through the preliminary hazards analysis.

(3) the ability to conceptualize and define an Integrated Standards - Based Safety Management Plan.

(4) the quality of the conceptual approach to developing radiation exposure standards for workers under accident conditions.

(5) the quality of the draft *Quality Assurance Plan* per 10 CFR 830.120.

(d) the proposed approach provides protection against likely threats of sabotage and misuse/loss of Special Nuclear Material.

c. Business Approach - The degree to which the Offeror's proposed business approach demonstrates the following (financial viability for performance of all Contract requirements is significantly more important than the other factors taken as a whole; all other factors are considered equally important):

1) the financial viability of the Offeror for effective performance of all Contract requirements (the long-term financial viability of the Offeror's organization for executing Decontamination and Decommissioning/RCRA closure requirements is considered of major importance);

2) the extent to which the proposed Business/Team Structure provides "one face" to DOE and effective management control of and integration among various Team Members;

3) the extent to which the organizational structure for each major Team Member provides effective management control of and integration among the different functional elements; and

4) the extent of corporate commitment to the success of the project.

M.6 Pricing Proposal Evaluation

The evaluation of the *Pricing Proposal* will consider the fixed prices proposed for Part A, and to a lesser extent, not to exceed prices offered for Part B. Proposed prices shall be evaluated for price reasonableness and understanding of the work to be performed.

M.7 Evaluation Factors for Initiation of Part B Work

DOE will evaluate the deliverables submitted by the Contractor as specified in Table 4-1 (*see* Section C). DOE will select the Contractor(s) for Part B performance who has demonstrated that it can meet the technical, regulatory, and financial requirements of the Contract and whose Project Master Schedule, Technical Report, Product Qualification Plan, Regulatory Compliance Program, and Business Implementation Plan provide the best value to DOE (including fixed unit prices and costs for treatment, storage, and disposal of waste forms and secondary waste products).

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Please send comments and questions to:

Peter Rasmussen, Contracting Officer
U. S. Department of Energy
Richland Operations
P. O. Box 550
Mail Stop K6-51
Richland, Washington 99352